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**PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934** For the fiscal year ended December 31, 2024 or "TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period from \_\_\_\_\_ to \_\_\_\_\_ Commission file number 1-16411 NORTHROP GRUMMAN CORPORATION (Exact name of registrant as specified in its charter) Delaware 80-0640649(State or other jurisdiction of incorporation or organization)A (I.R.S. Employer Identification Number)2980 Fairview Park Drive Falls Church, Virginia 22042(Address of principal executive offices)(Zip code)(703) 414 280-2900 (Registrant's telephone number, including area code)Securities registered pursuant to section 12(b) of the Act:Title of each classTrading Symbol(s)Name of each exchange on which a registered Common StockNOCNew York Stock ExchangeSecurities registered pursuant to Section 12(g) of the Act:NoneIndicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.A Yes A No Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.A Yes A No Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.A Yes A No Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (AS232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).A Yes A No Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of accelerated filer, accelerated filer, smaller reporting company and emerging growth company in Rule 12b-2 of the Exchange Act.Large Accelerated Filer A Accelerated Filer A Smaller Reporting Company A Non-accelerated Filer A A A A Emerging Growth Company If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. Indicate by check mark whether any of those error corrections are restatements that require a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to AS240.10D-1(b). Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).A Yes A No As of June 30, 2024, the aggregate market value of the common stock (based upon the closing price of the stock on the New York Stock Exchange) of the registrant held by non-affiliates was approximately \$63.7 billion. As of January 27, 2025, 144,755,659 shares of common stock were outstanding.DOCUMENTS INCORPORATED BY REFERENCEPortions of Northrop Grumman Corporation's Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for the 2025 Annual Meeting of Shareholders are incorporated by reference in Part III of this Form 10-K.NORTHROP GRUMMAN CORPORATION TABLE OF CONTENTSA A PagePART IItem 1.Business1Item 1A.Risk Factors8Item 1B.Unresolved Staff Comments21Item 1C.Cybersecurity21Item 2.Properties24Item 3.Legal Proceedings25Item 4.Mine Safety Disclosures25PART IIItem 5.Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities26Item 6.[Reserved]27Item 7.Management's Discussion and Analysis of Financial Condition and Results of Operations28Overview28Consolidated Operating Results30Segment Operating Results32Product and Service Analysis33Backlog38Liquidity and Capital Resources38Critical Accounting Policies and Estimates40Item 7A.Quantitative and Qualitative Disclosures About Market Risk46Item 8.Financial Statements and Supplementary Data47Report of Independent Registered Public Accounting Firm47Consolidated Statements of Earnings and Comprehensive Income49Consolidated Statements of Financial Position50Consolidated Statements of Cash Flows51Consolidated Statements of Changes in Shareholders' Equity52Notes to Consolidated Financial Statements531. 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Subsequent Event87Item 9.Changes in and Disagreements with Accountants on Accounting and Financial Disclosure88Item 9A.Controls and Procedures88Item 9B.Other Information88Management's Report on Internal Control over Financial Reporting88Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting89Certain Trading Agreements90Item 9C.Disclosure Regarding Foreign Jurisdictions that Prevent Inspections90PART IIIItem 10.Directors, Executive Officers and Corporate Governance91Item 11.Executive Compensation92Item 12.Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters92Item 13.Certain Relationships and Related Transactions, and Director Independence92Item 14.Principal Accountant Fees and Services92PART IVItem 15.Exhibits, Financial Statement Schedule93Item 16.Form 10-K Summary100Signatures101A iiNORTHROP GRUMMAN CORPORATIONPART A Item 1. BusinessHISTORY AND ORGANIZATIONHistoryNorthrop Grumman Corporation (herein referred to as "Northrop Grumman," "the company," "we," "us," "ours," "our," "their," "them") is a leading global aerospace and defense technology company. We deliver a broad range of products, services and solutions to U.S. and international customers, and principally to the U.S. Department of Defense (DoD) and intelligence community. Our broad portfolio is aligned to support national security priorities and our solutions equip our customers with capabilities they need to connect, protect and advance humanity. The company is a leading provider of space systems, military aircraft, missile defense, advanced weapons and long-range fires capabilities, mission systems, networking and communications, strategic deterrence systems, and breakthrough technologies, such as advanced computing, microelectronics and cyber. We are focused on competing and winning programs that enable continued growth, performing on our commitments and affordably delivering capability our customers need. With the investments we've made in advanced technologies, combined with our talented workforce and digital transformation capabilities, Northrop Grumman is well positioned to meet our customers' needs today and in the future. For a discussion of risks associated with our operations, see "Risk Factors."The company originally was formed in 1939 in Hawthorne, California as Northrop Aircraft Incorporated and was reincorporated in Delaware in 1985, as Northrop Corporation. Northrop Corporation was a principal developer of flying wing technology, including the B-2 Spirit stealth aircraft. We developed into one of the largest defense technology companies in the world through a series of acquisitions, as well as organic growth, including the following:

- Acquired 1994 - Acquired Grumman Corporation, a premier military aircraft systems integrator. The combined company was renamed Northrop Grumman Corporation; and
- Acquired 1996 - Acquired the defense and electronics businesses of Westinghouse Electric Corporation, developer of sophisticated radar and other electronics systems;
- Acquired 2001 - Acquired Litton Industries, Inc., a global electronics and information technology company and full service shipbuilder;
- Acquired 2001 - Acquired Newport News Shipbuilding Inc., designer and builder of nuclear-powered aircraft carriers and submarines;
- Acquired 2002 - Acquired TRW Inc., developer of military and civil space systems and payloads, and integrator of complex, mission-enabling systems and services;
- Acquired 2011 - Completed the spin-off of Huntington Ingalls Industries, Inc., operator of our former shipbuilding business, comprised largely of a part of Litton Industries and Newport News Shipbuilding;
- Acquired 2018 - Acquired Orbital ATK, Inc. (OATK), developer and producer of satellites and other space systems, launch vehicles and missile products; and
- Acquired 2021 - Completed the sale of our IT and mission support services business (the "IT services divestiture") to Veritas Capital.

OrganizationFrom time to time, we acquire or dispose of businesses and realign contracts, programs or businesses among and within our operating segments. Internal realignments are typically designed to leverage existing capabilities more fully and to enhance efficient development and delivery of products and services. At December 31, 2024, the company was aligned in four operating sectors, which also comprise our reportable segments: Aeronautics Systems, Defense Systems, Mission Systems and Space Systems.Effective July 1, 2024, the company realigned the Strategic Deterrent Systems (SDS) division, which includes the Ground-Based Strategic Deterrent ("GBSD/Sentinel") program, from Space Systems to Defense Systems. This realignment is reflected in the financial information contained in this report.-1-NORTHROP GRUMMAN CORPORATIONSUBSEQUENT REALIGNMENT - Effective January 1, 2025, the company realigned the Strike and Surveillance Aircraft Solutions (SSAS) business unit from Defense Systems to Aeronautics Systems. This realignment is not reflected in the financial information contained in this report; it will be reflected in the company's operating results beginning in the first quarter of 2025.AERONAUTICS SYSTEMSAeronautics Systems is a leader in the design, development, production, integration, sustainment and modernization of military aircraft systems for the U.S. Air Force, the U.S. Navy, other U.S. government agencies, and international customers. Major products include strategic long-range strike aircraft; tactical fighter and air dominance aircraft; airborne battle management and command and control systems; and unmanned autonomous aircraft systems, including high-altitude long-endurance (HALE) strategic intelligence, surveillance and reconnaissance (ISR) systems. Approximately 45 percent of this business is performed through restricted programs. Key programs include:

- Development and production of the U.S. Air Force B-21 Raider long-range strike aircraft that defines sixth-generation technologies;
- Modernization and sustainment services for the B-2 Spirit stealth aircraft;
- Fuselage production for the F-35 Lightning II Joint Strike Fighter and F/A-18 Super Hornet for use by U.S. and international forces;
- E-2D Advanced Hawkeye battle management aircraft production for the U.S. Navy, Japan, and France;
- MQ-40 Triton, which provides wide area strategic ISR over vast ocean and coastal regions for maritime domain awareness to the U.S. Navy and Australia;
- QR-4 Global Hawk, which provides high resolution imagery of land masses for theater awareness and strategic ISR to the U.S. Air Force, Japan, and the Republic of Korea; and
- North Atlantic Treaty Organization (NATO) Alliance Ground Surveillance (AGS), a Global Hawk variant, for strategic ISR missions conducted in multinational theater operations.

DEFENSE SYSTEMSDefense Systems is a leader in the design, engineering, development, integration and production of strategic deterrent systems, advanced tactical weapons, and missile defense solutions, and a provider of sustainment, modernization and training services for manned and unmanned aircraft and electronics systems for the U.S. military and a broad range of international customers. Major products and services include strategic missiles; integrated, all-domain command and control (C2) systems; precision strike weapons; advanced propulsion, including tactical solid rocket motors and high speed air-breathing and hypersonic systems; high-performance gun systems, ammunition, precision munitions and advanced fuses; and aircraft and mission systems logistics support, sustainment, operations and modernization. Less than 5 percent of this business is performed through restricted programs. Key programs include:

- Sentinel Engineering & Manufacturing Development (EMD) program, initial phase of the

modernization of the intercontinental ballistic missile (ICBM) system that will serve as the ground-based strategic deterrent for the U.S. nuclear triad;•Integrated Battle Command System (IBCS) for the U.S. Army and Poland, which is an open architecture system that seamlessly integrates sensors and effectors to deliver among the most advanced C2 systems for joint and coalition forces;•Medium (30mm and 20mm) and Large (120mm) caliber tactical and training ammunition production;•Guided Multiple Launch Rocket System (GMLRS) propulsion and warhead subsystems for a surface-to-surface system used to defeat targets using indirect precision fires; •U.S. Navy’s Advanced Anti-Radiation Guided Missile (AARGM), a medium-range, air-to-surface missile, and its extended range variant, AARGM-ER; •U.S. Air Force’s Stand-In Attack Weapon (SIAW), an advanced capability air-to-surface tactical missile for the F-35;•Hypersonic Attack Cruise Missile (HACM) air-breathing, scramjet propulsion subsystem for the hypersonic air-launched cruise missile to travel at speeds of Mach 5 or greater; -2-NORTHROP GRUMMAN CORPORATION’s Global system sustainment and operations support for the F-35, B-2, P-3 Orion, E-6B Mercury, KC-30A multi-role tanker, C-27J transport, NATO AGS, Triton and restricted programs;•Precision Guidance Kit (PGK), replaces conventional fuzes for artillery and mortar munitions and transforms them into Global Positioning System enabled precision guided weapons;•Forward Area Air Defense Command and Control (FAAD C2), the Army’s long-standing program of record for short range air defense and Counter Rocket, Artillery and Mortar (C-RAM), as well as the interim C2 for Counter Unmanned Aircraft Systems (C-UAS);•AAQ-24 sensor sustainment and repair for U.S. military customers; and•Special Electronics Mission Aircraft (SEMA) ISR support.MISSION SYSTEMSMission Systems is a leader in advanced mission solutions and multifunction systems, primarily for the U.S. defense and intelligence community, and international customers. Major products and services include command, control, communications and computers, intelligence, surveillance and reconnaissance (C4ISR) systems; radar, electro-optical/infrared (EO/IR) and acoustic sensors; electronic warfare systems; advanced communications and network systems; advanced microelectronics; navigation and positioning sensors; maritime power, propulsion and payload launch systems; full spectrum cyber solutions; and intelligence processing systems. Approximately 30 percent of this business is performed through restricted programs. Key unrestricted programs include:•Scalable Agile Beam Radar (SABR), an active electronically scanned array fire control radar system for F-16 aircraft; •F-35 fire control radar and Distributed Aperture System (DAS), which provides 360 degree field of view tracking, identifying, missile warning and night vision capabilities; •F-35 Communications, Navigation and Identification (CNI) integrated avionics system, which provides secure communications and interoperability capabilities;•Ground/Air Task Oriented Radar (G/ATOR), a mobile multi-mode active electronically scanned array; •Surface Electronic Warfare Improvement Program (SEWIP) Block III, which protects surface ships from anti-ship missiles, provides early detection, signal analysis and threat warning;•Airborne Early Warning & Control (AEW&C). The centerpiece of the E-7 AEW&C aircraft is the Multi-role Electronically Scanned Array (MESA) radar which enables 360 degree long range advanced air moving target indicator (AMTI) capabilities for Battle Management, Command and Control, and Maritime Surveillance;•Large Aircraft and Common Infrared Countermeasures (LAIRCM, DoN LAIRCM, CIRCM) systems, which protect large aircraft as well as rotary wing and medium fixed wing aircraft from infrared missiles using advanced laser technology; •Battlefield Airborne Communications Node (BACN), one of the first airborne gateway systems that allows platforms to communicate and securely share data; •DDG Modernization, which is comprised of several subsystems to support modernization of Arleigh Burke-class guided missile destroyers including Integrated Bridge and Navigation Systems (IBNS) and ship control systems;•LITENING Advanced Targeting Pod, an electro-optical infrared sensor system for targeting and surveillance that enables aircrews to detect, acquire, identify and track targets at long ranges; •APR-39 DV(2) and EV(2) Radar Warning Receiver programs, which provide a digital radar warning receiver for the U.S. Army, Navy and Marines; •Exploitation and cyber programs, which provide cyber and intelligence domain support through unique intelligence and cyber capabilities; •AC/MC 130J Radio Frequency Countermeasures system, which provides superior situational awareness and better enables aircraft survivability in operationally relevant environments; and •Embedded Global Positioning System (GPS) / Inertial Navigation Systems-Modernization (EGI-M) program, which provides state-of-the-art airborne navigation capabilities with an open architecture that enables rapid responses to future threats.-3-NORTHROP GRUMMAN CORPORATIONSPACE SYSTEMSSpace Systems is a leader in delivering end-to-end mission solutions through the design, development, integration, production and operation of space, missile defense, and launch systems for national security, civil government, commercial and international customers. Major products include satellites and spacecraft systems, subsystems, sensors and payloads; ground systems; missile defense systems and interceptors; and launch vehicles and related propulsion systems. Approximately 40 percent of this business is performed through restricted programs. Key unrestricted programs include: •Evolved Strategic SATCOM (ESS) satellites and payloads providing assured, no-fail, and survivable Nuclear Command and Control (NC3) communications capabilities;•Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) program satellites and payloads providing resilient and enhanced missile warning over the critical northern polar region;•Space Development Agency Tracking and Transport layers providing missile warning/tracking and resilient, low-latency, high-volume data transport communication systems;•Missile defense systems, interceptors, targets, mission processing and boosters for the Missile Defense Agency’s (MDA) Ground-based Midcourse Defense Weapon Systems (GWS);•Cygnus spacecraft, used in the execution of our Commercial Resupply Services (CRS) contracts with NASA to resupply and re-boost the International Space Station;•Development and production of solid rocket motors for NASA’s Space Launch System (SLS) heavy lift vehicle;•Habitation and Logistics Outpost (HALO) module in support of NASA’s Lunar Gateway;•63-inch diameter Graphite Epoxy Motor (GEM 63) and the extended length variation (GEM 63XL) solid rocket boosters used to provide lift capability for the ATLAS V and Vulcan launch vehicles;•Medium-class solid rocket motors for the U.S. Navy’s Trident II Fleet Ballistic Missile program;•Glide Phase Interceptor (GPI) Cooperative Development producing interceptor capability to defeat hypersonic threats;•Protected Tactical SATCOM (PTS) satellites and payloads providing resilient, protected tactical communications to U.S. forces; and•Arctic Satellite Broadband Mission (ASBM) satellites and payloads expanding both commercial as well as military broadband communications for an international partner.CUSTOMER CONCENTRATIONOur largest customer is the U.S. government. Sales to the U.S. government accounted for 87 percent, 86 percent and 86 percent of sales during the years ended December 31, 2024, 2023 and 2022, respectively. For further information on sales by customer type, contract type and geographic region, see Note 15 to the consolidated financial statements. See “Risk Factors” for further discussion regarding risks related to customer concentration.COMPETITIVE CONDITIONSWe compete with many companies in the defense, intelligence and federal civil markets. The Boeing Company, General Dynamics, L3Harris Technologies, Lockheed Martin, and RTX are some of our primary competitors. Key characteristics of our industry include long operating cycles and intense competition, which is evident through the number of competitors bidding on program opportunities and the number of competitor protests of U.S. government procurement awards.It is common in the defense industry for work on major programs to be shared among a number of companies. A company competing to be a prime contractor may, upon ultimate award of the contract to another competitor, serve as a subcontractor to the ultimate prime contracting company. It is not unusual to compete for a contract award with a peer company and, simultaneously, perform as a supplier to or a customer of that same competitor on other contracts, or vice versa.SEASONALITYNo material portion of our business is seasonal.-4-NORTHROP GRUMMAN CORPORATIONBACKLOGAt December 31, 2024, total backlog, which is equivalent to the company’s remaining performance obligations, was \$91.5 billion as compared with \$84.2 billion at December 31, 2023. For further information, see “Backlog” in “Management” Discussion and Analysis of Financial Condition and Results of Operations (MD&A) and Note 1 to the consolidated financial statements.INTELLECTUAL PROPERTYWe protect our technological innovations using a combination of trade secrets, patents, trademarks, and copyrights. We routinely apply for patents related to the technologies we develop in the U.S. and in certain foreign jurisdictions. We license some intellectual property rights to third parties and we also license or otherwise obtain access to intellectual property from third parties. The U.S. government typically holds licenses to patents developed in the performance of U.S. government contracts and may use or authorize others to use the inventions covered by these patents for certain purposes. See “Risk Factors” for further discussion regarding risks related to intellectual property.RAW MATERIALSWe have experienced challenges with access to certain raw materials due to macroeconomic factors and several global events such as inflation, geopolitical conflicts and microelectronics shortages. In some cases, these challenges have significantly increased the cost and/or lead time required to obtain certain raw materials. Nonetheless, these challenges have not, to date, materially impacted our ability to perform on our contracts. See “Risk Factors” for further discussion regarding risks related to raw materials.HUMAN CAPITALUnderpinned by our values and culture, we hire, promote, and pay based on merit and performance to ensure we have the best team to deliver for our customers. Our focus on technology, innovation and career growth enables us to attract qualified talent, particularly those with security clearances and requisite skills in multiple areas, including science, technology, engineering and math. Our differentiated culture and workforce was a factor in our ability to hire approximately 7,400 new employees in 2024, and as of December 31, 2024, we have approximately 97,000 employees. Our Values and CultureOur values reflect our priorities and form the bedrock of our culture:•We do the right thing • we earn trust, act with ethics, integrity and transparency, treat everyone with respect, value diverse perspectives and foster safe and inclusive environments.•We do what we promise • we own the delivery of results, focused on quality. •We commit to shared success • we work together to focus on the mission and take accountability for the sustainable success of our people, customers, shareholders, suppliers and communities. •We pioneer • with fierce curiosity, dedication and innovation, we seek to solve the world’s most challenging problems.Among other programs through which the company lives its values, the company maintains a Standards of Business Conduct program through which our employees are empowered to raise concerns through multiple channels without fear of reprisal. In addition to full-time ethics professionals, we also have over 150 business conduct advisors who promote values and an ethical culture within the company. Additionally, our annual Employee Experience Survey gives employees a voice and a mechanism to provide feedback on our culture and empower our leaders to enhance the employee experience. This anonymous survey encourages employee candor on key engagement and inclusion drivers, including belonging, respect, a sense of personal work accomplishment and recommending the company to others. In 2024, 80 percent of employees responded to the survey, an indication that our employees believe their feedback matters. Our performance on the annual survey is compared to the Qualtrics Global Benchmark and our survey results exceeded many of their global norms for both engagement and inclusion. Our leaders review the survey responses and work collaboratively with their teams to take meaningful actions based on survey results.Our culture and values serve as an enabling force that helps us pioneer, perform and deliver on quality, which results in value for our shareholders, customers, and employees. We actively seek candidates for employment from a wide range of backgrounds and experiences to tap into the full spectrum of talent available now and in the future to create a culture of belonging for everyone. -5-NORTHROP GRUMMAN CORPORATIONTalent Management Northrop Grumman’s talent strategy is focused on four key pillars: broadening talent pools; enhancing the employee experience; building leaders of the future; and fostering employee growth. Our strategy addresses the external and internal landscape and ensures that we can attract, retain and develop the workforce necessary to support the continued success of the business. We hold regular talent review discussions to ensure line of sight to talent at various levels of the organization. We refresh and review succession plans to ensure a robust pipeline of talent and business continuity with a tight linkage to development. We focus on accelerating learning and development of our leaders by providing a combination of experiences, exposure and education.Our employee development programs strengthen employee skills aligned to our current and future business needs through on-the-job development, knowledge sharing and tools to support career growth. Employees utilize curated, career-specific resources such as My Learning Experience, a machine learning enabled content aggregator that creates a personalized learning experience for each employee. Our Education Assistance Program subsidizes tuition and other educational institution fees to support development through job-related degrees and certificates. Our early-in-career rotation program, Pathways, develops talent pipelines with both depth of critical skills and breadth of experiences. Our technical cohort programs cultivate technical, domain expertise and collaborative thought leadership for early through advanced career levels.In a rapidly changing world, we maintain focus on keeping our team and our company prepared for the evolving future of work. In addition to offering our employees flexible work arrangements, caregiver support and mental health services that help our employees make their careers work within their lives, we also help our employees build the careers that will serve them into the future. We ensure that our employees have the tools and resources to develop their knowledge base and skill sets, so they can continue to thrive at Northrop Grumman even in the midst of change. When our employees succeed and grow at work, our business succeeds and grows. Through a focus on our employees, we remain agile and innovative, adapting to the future as it unfolds before us. Employee Health and SafetyHealth and safety are foundational to our success. People are our most valuable resource and we prioritize occupational health and safety to position the company for long-term success.Training and risk and hazard identification, mitigation and prevention are key components of Northrop Grumman’s safety program. Everyone has a responsibility to identify workplace hazards, and employees may raise concerns without fear of reprisal. We evaluate the effectiveness of our health and safety programs by conducting trend analyses of our past performance and externally through benchmarking with industry peers and the U.S. Bureau of Labor Statistics.Collective Agreements Approximately 4,100 employees are covered by 15 collective agreements in the U.S., of which we negotiated five renewals in 2024 and expect to negotiate seven renewals in 2025.See “Risk Factors” for further discussion regarding risks related to our workforce and employee relations.REGULATORY MATTERSGovernment Contract Security RestrictionsWe are prohibited by the U.S. government from publicly discussing the details of classified programs. These programs are generally referred to as “restricted” in this Annual Report. The consolidated financial statements and financial information in this Annual Report reflect the operating results of our entire company, including restricted programs.ContractsWe generate the majority of our business from long-term contracts with the U.S. government for development, production and support activities. Unless otherwise specified in a contract, allowable and allocable costs are billed to contracts with the U.S. government pursuant to the Federal Acquisition Regulation (FAR) and U.S. government Cost Accounting Standards (CAS), which are regulations that govern cost accounting requirements for government contracts. Examples of costs incurred by us and not billed to the U.S. government in accordance with applicable FAR and CAS requirements include, but are not limited to, unallowable employee compensation, charitable donations, interest expense, advertising, and certain legal and travel costs.We monitor our contracts on a regular basis for compliance with our policies and procedures and applicable government laws and regulations. In addition, costs incurred and allocated to contracts with the U.S. government are routinely audited by the Defense Contract Audit Agency (DCAA).-6-NORTHROP GRUMMAN CORPORATIONOur long-term contracts typically fall into one of two contract types:Cost-type contracts • Cost-type contracts include cost plus fixed fee, cost plus award fee and cost plus incentive fee contracts. Cost-type contracts generally provide for reimbursement of a contractor’s allowable costs incurred plus fee. As a result, cost-type contracts have less financial risk associated with unanticipated cost growth but generally provide lower profit margins than fixed-price contracts. Cost-type contracts typically require that the contractor use its best efforts to accomplish the scope of work within some specified time and stated dollar limitation. Fees on cost-type contracts can be fixed in terms of dollar value or can be variable due to award and incentive fees, which are generally based on performance criteria such as cost, schedule, quality and/or technical performance. Award fees are determined and earned based on customer evaluation of the company’s performance against contractual criteria. Incentive fees are generally based on cost or schedule and provide for an initially negotiated fee to be adjusted later, based on the relationship of total allowable costs to total target costs or as schedule milestones are met. Award and incentive fees are included in total estimated sales to the extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. We estimate variable consideration as the most likely amount to which we expect to be entitled.Fixed-price contracts • Firm fixed-price contracts include a specified scope of work for a price that is a pre-determined, negotiated amount and not typically subject to adjustment regardless of costs incurred by the contractor, absent changes by the customer. As a result, fixed-price contracts typically have more financial risk associated with unanticipated cost growth, but provide the opportunity for higher profit margins. Certain fixed-price incentive fee contracts provide for reimbursement of the contractor’s allowable costs plus a fee up to a cost ceiling amount, typically through a cost-sharing ratio that affects profitability. These contracts effectively become firm fixed-price contracts once the cost-share ceiling is reached. Time-and-materials contracts are considered fixed-price contracts as they specify a fixed hourly rate for each labor hour charged.Profit margins on our contracts may vary materially depending on, among other things, the contract type, contract phase (e.g., development, low-rate production or mature production), negotiated fee arrangements, achievement of performance objectives, unexpected macroeconomic factors or other circumstances, and cost, schedule and technical performance.See Note 1 to the consolidated financial statements and “Risk Factors” for further information regarding our contracts and Note 15 to the consolidated financial statements for sales by contract type.The following table summarizes sales for the year ended December 31, 2024, recognized by contract type and customer category:\$ in millionsU.S. Government(1)International(2)Other CustomersTotalPercentageofA TotalSalesCost-type contracts\$20,256\$ 684\$ 24\$ 20,96451%Fixed-price contracts15,180\$ 4,316\$ 573\$ 20,06949%Total sales\$35,436\$ 5,000\$ 597\$ 41,033100%(1)Sales to the U.S. government include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is the U.S. government. Each of the company’s segments derives a substantial percentage of its

revenue from the U.S. government. (2) International sales include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is an international customer. These sales include foreign military sales contracted through the U.S. government. EnvironmentalOur operations are subject to and affected by federal, state, local and foreign laws, regulations and enforcement actions relating to protection of human health and the environment. We have incurred and expect to continue to incur capital and operating costs to comply with applicable environmental laws and regulations and to achieve our environmental sustainability goals. See “Risk Factors” and Notes 1 and 11 to the consolidated financial statements for further information regarding environmental matters. Our environmental sustainability goals focus on Northrop Grumman’s facilities in addition to supply chain partners and customers:-7-NORTHROP GRUMMAN CORPORATIONNet zero greenhouse gas emissions (GHG) in operations (Scopes 1 and 2) by 2035. Interim target of 50% GHG emissions reduction by 2030;Source 50 percent of total electricity from renewable sources by 2030;Reduce 10% of absolute water withdrawals, reuse 10% of water withdrawals and replenish 10% of water withdrawals, focusing in water-stressed regions” all by 2030;Reduce solid waste sent to landfill and incineration by 10% by 2030; “In collaboration with key customers, work to develop a pioneering product stewardship program focused on material efficiency, product design and life cycle assessment;”Expand Technology for Conservation initiatives in proximity to Northrop Grumman’s U.S. locations by 2030, in collaboration with external partners.Additional information regarding our environmental sustainability goals is available in our Sustainability Report, which can be found on our company website.EXECUTIVE OFFICERSSee “Directors, Executive Officers and Corporate Governance” for information about our executive officers.AVAILABLE INFORMATIONOur principal executive offices are located at 2980 Fairview Park Drive, Falls Church, Virginia 22042. Our telephone number is (703) 280-2900 and our home page is [www.northropgrumman.com](http://www.northropgrumman.com).Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statement for the annual shareholders’ meeting, as well as any amendments to those reports, are available free of charge through our website as soon as reasonably practicable after we file them with the U.S. Securities and Exchange Commission (SEC). You can learn more about us by reviewing our SEC filings on the investor relations page of our website.The SEC also maintains a website at [www.sec.gov](http://www.sec.gov) that contains reports, proxy statements and other information about SEC registrants, including Northrop Grumman Corporation. References to our website and the SEC’s website in this report are provided as a convenience and do not constitute, and should not be viewed as, incorporation by reference of the information contained on, or available through, such websites. Such information should not be considered a part of this report, unless otherwise expressly incorporated by reference in this report.Item 1A. Risk FactorsOur consolidated financial position, results of operations and cash flows are subject to various risks, many of which are not exclusively within our control, that may cause actual performance to differ materially from historical or projected future performance. We encourage you to consider carefully the risk factors described below in evaluating the information contained in this report as the outcome of one or more of these risks could have a material adverse effect on our financial position, results of operations and/or cash flows.Industry and Economic RisksWe depend heavily on a single customer, the U.S. government, for a substantial portion of our business. Changes in this customer’s strategies, priorities and spending could have a material adverse effect on our financial position, results of operations and/or cash flows.Our primary customer is the U.S. government, from which we derived 87 percent of our sales in 2024; we have a number of large programs with the U.S. Department of the Air Force, in particular. The U.S. government has the ability to delay, modify or cancel ongoing competitions, procurements and programs, as well as to change its future acquisition strategy. We cannot predict the impact on existing, follow-on, replacement or future programs from potential changes in the threat and global security environment, defense spending levels, government and budgetary priorities, political leadership, procurement practices and strategy, inflation and other macroeconomic trends, military strategy, or broader changes in social, economic, security or political demands and priorities. The U.S. government has the ability to terminate contracts, in whole or in part, for its convenience or for default based on performance. In the event of termination for convenience, contractors are generally protected by provisions covering reimbursement for costs incurred and profit on those costs up to the amount authorized under the contract. -8-NORTHROP GRUMMAN CORPORATIONBut not the anticipated profit that would have been earned. However, to the extent insufficient funds have been appropriated by the U.S. government to cover such costs, the U.S. government may assert that it is not required to provide additional funding for such costs. In the event of termination due to default, contractors may be required to pay for re-procurement costs in excess of the original contract price, net of the value of work accepted from the original contract, as well as other damages. Termination due to our default (or that of a teammate) could have a material adverse effect on our reputation, our ability to compete for other contracts and our financial position, results of operations and/or cash flows.Where program cost estimates exceed certain thresholds, our customer has been, and may in the future be, required to provide congressional notification of significant or critical cost increases (or breaches) under the Nunn-McCurdy Act, which, in some circumstances, could result in program restructure or termination. For example, in January 2024 the customer provided congressional notification that the Sentinel program (formerly called the Ground Based Strategic Deterrent program) was under a Nunn-McCurdy breach review, which was completed in July 2024, resulting in the certification for continuance of the program.The U.S. government also has the ability to stop work under a contract for a limited period of time for its convenience. The U.S. government has invoked and could invoke this ability across a limited or broad number of contracts. In the event of a stop work order, contractors are typically protected by provisions covering reimbursement for costs incurred to date and for costs associated with the temporary stoppage of work plus a reasonable fee. However, such temporary stoppages often introduce inefficiencies and result in financial and other damages for which contractors may not be able to negotiate full recovery. In some cases, they have also ultimately resulted and could result in termination of a contract for convenience or reduced future orders.“Significant delays or reductions in appropriations for our programs or U.S. government funding more broadly, including a prolonged continuing resolution, government shutdown or breach of the debt ceiling, and future budget and program decisions can negatively impact our business and programs and could have a material adverse effect on our financial position, results of operations and/or cash flows.U.S. government programs are subject to annual congressional budget authorization and appropriation processes. For many programs, Congress appropriates funds annually even though the program performance period may extend over several years. Programs are often partially funded initially, with additional funds committed only as Congress makes further appropriations. When we or our subcontractors incur costs in excess of funds obligated on a contract, we are generally at risk for reimbursement unless and until additional funds are obligated to the contract. We cannot predict what funding will ultimately be approved for individual programs. In addition, pressures on, as well as laws and plans relating to the federal budget, potential changes in priorities and defense spending, the timing and substance of the appropriations process, use of continuing resolutions (with restrictions, e.g., on new contract and program starts) and the federal debt limit (including a breach of the federal debt ceiling), have adversely affected and could adversely affect the amount and timing of funding for individual programs and delay purchasing or payments by our customers. In the event government funding for our significant programs is reduced, delayed or unavailable, or orders are reduced, our contracts or subcontracts, or competitions for such programs have at times been, and in the future may be, terminated or changed. The U.S. continues to face a changing geopolitical environment, along with substantial fiscal, economic and security challenges, which affect funding and budgetary priorities. The budget and macroeconomic environment, global security environment, political instability, and uncertainty surrounding the appropriations processes and the debt ceiling, remain significant short and long-term risks. See “Overview” in MD&A. In addition, high deficit levels and high debt servicing costs could drive cuts to federal spending. Considerable uncertainty exists regarding how future budget and program decisions will unfold. If annual appropriations bills are not timely enacted, the U.S. government may continue to operate under a continuing resolution (potentially of extended duration), restricting new contract or program starts, presenting resource allocation challenges and placing limitations on budgets. We also may face a prolonged government shutdown that could lead to program cancellations, disruptions and/or stop work orders and could limit the U.S. government’s ability to progress programs and make timely payments. A prolonged shutdown could limit our ability to perform on our contracts and successfully compete for new work. If the statutory debt limit is not increased adequately, we could be obligated to work without receiving timely payments, and a prolonged breach could have far-reaching adverse consequences. If the macroeconomic environment deteriorates, including due to rising inflation or other causes, we could experience labor and supply chain challenges and increased costs and existing or anticipated appropriated and contracted funds may not be sufficient to cover costs incurred on existing or future programs. -9-NORTHROP GRUMMAN CORPORATIONFuture funding for certain programs in which we participate may be reduced, delayed or cancelled. Budget cuts globally could adversely affect the viability of our subcontractors and suppliers. While we believe that our business is well-positioned in areas for future defense spending, changing priorities, budget pressures, defense spending cuts, challenges in the appropriations process, the possibility of a long-term continuing resolution (or series of continuing resolutions) and breach of the debt ceiling, ongoing fiscal debates and the global economic and security environment increase uncertainties and risk.“We use estimates when accounting for contracts. Contract cost growth or changes in estimated contract revenues and costs can affect our profitability and could have a material adverse effect on our financial position, results of operations and/or cash flows.Contract accounting requires judgment, including in assessing risks, estimating contract revenues and costs, and predicting future performance. Given the size and nature of our many contracts, estimating total revenues and costs at completion is complex and subject to many variables. When there is sufficient information to assess expected future performance, we consider performance related incentives, awards and penalties in estimating revenue and profit rates. Suppliers’ expected performance, and the availability and costs of labor, materials and components, are also considered.Our operating income can be adversely affected when estimated contract costs increase, especially without comparable increases in revenue. There are many reasons estimated contract costs can increase, including inflation, labor challenges, supply chain challenges, and market and exchange rate volatility; delays or limitations in customer funding; design or other development challenges; production challenges (including from technical or quality issues and other performance concerns); inability to realize learning curves or other cost savings; changes in laws or regulations; actions necessary for long-term customer satisfaction; and natural disasters or environmental matters. We aim to mitigate this risk through contract terms, and we have submitted and may submit requests for equitable adjustment (REAs), engineering change proposals or other claims to seek recovery in whole or in part for our increased costs. We have also sought, and will seek, other avenues, as appropriate, to compensate the company for certain unexpected cost increases. However, our contracts may not enable full recovery, and/or customers may disagree with our requests or may not have funding to cover them. Our risk varies with the type of contract. Fixed-price contracts inherently tend to have more financial risk than cost-type contracts, including as a result of inflationary pressures, labor rates and shortages, challenges in estimating contract revenues and costs and supplier challenges. In 2024, approximately half of our sales were derived from fixed-price contracts. We have more often entered into fixed-price contracts where costs can be more reasonably estimated based on actual experience, such as for mature production programs. However, our customers have sought, and may in the future seek, fixed-price contracts for development programs, combined development and production programs, or low-rate initial production programs, where the risks are greater. For example, such contracts can create performance and financial risks, whether due to the estimates of costs required to complete such contracts being subject to potentially significant variability or because of the challenge of starting and stabilizing manufacturing production and test lines while concurrently validating final design and managing changes in requirements or capabilities requested by the customer. In addition, our contracts contain provisions relating to cost controls and audit rights. If we do not achieve our estimates or meet terms in our contracts, our profitability has at times been and may be reduced, and we have incurred and may incur losses. Certain of our fixed-price contracts include or may include fixed-price development work. This work is inherently more uncertain, and, as a result, there is typically more variability in estimates of the costs to complete the development stage. As work progresses into production, the risks associated with estimating total costs are typically reduced as compared to fixed-price development work. While management uses its best judgment to estimate costs associated with fixed-price contracts, future events can result in significant adjustments. In addition, from time to time, we may begin performing on a contract prior to completing contract negotiations. Uncertainties in final contract terms, quantity and pricing, or loss of negotiating leverage associated with long delays could negatively affect our profitability. Certain of our contracts also include options exercisable at the customer’s discretion. The customer may decline to exercise an option, or the customer may exercise an option for which we may incur a loss or perform at a low margin, either of which could adversely affect our results of operations. Under cost-type contracts, allowable costs are generally subject to reimbursement plus a fee. We often enter into cost-type contracts for development programs with complex design and technical challenges. These cost-type programs may have award or incentive fees that are uncertain and may be earned over extended periods or towards the end of the contract. In these cases, the financial risks are typically in recognizing profit, which ultimately may not be earned, or program cancellation if cost, schedule, or technical performance issues arise. We also face -10-NORTHROP GRUMMAN CORPORATIONAdditional financial risk when solicitations require us to bid on cost-type development work and fixed-price production lots and/or options in one submission, where we must estimate the cost of production before a product has been developed and tested, or cost-type development work requiring us to provide certain items at our expense or with little or no fee. Macroeconomic challenges increase these risks. Because of the significance of management’s judgments and the estimation processes, and the difficulties inherent in estimating future costs, particularly in a challenging macroeconomic environment, it is possible that we could see materially different results. Changes in underlying assumptions, circumstances or estimates, and the failure to recover on requests for equitable adjustments, engineering change proposals or other claims could have a material adverse effect on the profitability of one or more of our contracts and on our overall financial position, results of operations and/or cash flows. See “Critical Accounting Policies and Estimates” in MD&A and Note 11 to the consolidated financial statements.“Competition within our markets and bid protests, or other attempts to interfere with our ability to obtain and retain awards, may affect our ability to win new contracts and result in reduced revenues, which could have a material adverse effect on our financial position, results of operations and/or cash flows.We operate in highly competitive markets and our competitors may have more financial capacity or more extensive or specialized engineering, technical, manufacturing, marketing or servicing capabilities. They may be willing to accept more risk or lower profitability in competing for contracts. We have seen, and anticipate we will continue to see, increased competition in some of our core markets, especially as a result of our customers’ budget pressures, their focus on affordability and competition, and our own success in winning business. We are facing increasing competition in the U.S. and outside the U.S. from U.S., foreign and multinational firms, including new entrants, and anticipate that mergers or acquisitions within our industry could further increase competition or could limit our access to certain suppliers without appropriate remedies to protect our interests. We are also facing increasing competition for, and more limited access to various critical products, services and other supplies. In some instances, foreign companies may receive loans, subsidies and other assistance from their governments that may not be available to U.S. companies and foreign companies may be subject to fewer restrictions on technology transfer. For some products and services, some customers, including the DoD, are turning to commercial contractors, newer entrants to markets and non-traditional defense contractors, which may have lower cost or more agile operating structures and the ability to leverage changes in customer acquisition strategies (e.g., multiple awardees, short lifecycles). In addition, some customers continue to utilize small business contractors or determine to source work internally. Our success in competing depends, in part, on our ability to remain cost-competitive, respond to changes in customer acquisition strategies, accurately anticipate our customers’ needs and successfully effect our digital transformation strategy and adopt and integrate new digital technologies into our manufacturing, operations, and products and services.In addition, U.S. government procurement laws permit certain legal challenges to the terms of a contract solicitation or award, referred to as a bid protest. Bid protests can result in award decisions being reversed and loss of the contract award. Even where a bid protest does not result in such a loss, it can result in significant expenses and delay the start of contract activities and revenue or result in contract modifications. We are also subject to risks associated with our ability to challenge Other Transaction Authority (OTA) agreements, which the U.S. government can award for certain research, prototype and production projects. OTA awards are not subject to all of the procurement requirements that typically apply to DoD contracts and rights to protest such awards may be more limited than for other contracts. “The global macroeconomic environment has negatively impacted and could in the future negatively impact our business, and if we are unable to mitigate such challenges, it could have a material adverse effect on our financial position, results of operations and/or cash flows.Our business, financial position, results of operations and/or cash flows have been and may in the future be adversely impacted by the global macroeconomic environment, which impacts have included and may in the future include high rates of inflation; increased interest rates; tight credit in financial markets; widespread disruptions in supply chains; workforce challenges, including labor shortages; and market volatility, including exchange rate volatility. These and other macroeconomic challenges have led and can lead to increased costs, labor and supply shortages, and delays and disruption in performance, as well as competing demands for scarce resources, which in turn have adversely impacted and may continue to adversely impact our customers, our industry, our company, our suppliers and others with whom we do business. We continue to work proactively to mitigate the challenges caused by the macroeconomic environment, including, in some cases, seeking the inclusion of economic price adjustment clauses or seeking to recover on requests for equitable adjustments, engineering change proposals or other claims. -11-NORTHROP GRUMMAN CORPORATIONLegal and

Regulatory RisksWe are subject to various investigations, claims, disputes, enforcement actions, litigation, and other legal proceedings that could ultimately be resolved against us and could have a material adverse effect on our financial position, results of operations and/or cash flows. The size, nature and complexity of our business make us particularly susceptible to investigations, claims, disputes, enforcement actions, prosecutions, litigation and other legal proceedings (collectively "legal proceedings"), particularly those involving governments, which may continue to increase. We are or may become subject to legal proceedings globally (including criminal, civil and administrative) and across a broad array of matters, including, but not limited to, government contracts, cost accounting, financial accounting and reporting, false statements or claims, cybersecurity and pension accounting and other employee benefit plan matters. These matters can divert resources; result in administrative, civil or criminal fines, penalties or other sanctions (including judgments, convictions, consent or other voluntary decrees or agreements), compensatory, treble or other damages, non-monetary relief, or other liabilities; and otherwise harm our business and our ability to obtain and retain awards. Certain outcomes may lead to suspension or debarment from government contracts or suspension of export/import privileges for the company or one or more of its components. Suspension or debarment or criminal resolutions in particular could have a material adverse effect on the company because of our reliance on government contracts and export authorizations. Legal proceedings, even if pending or not ultimately resulting in adverse action, or if fully indemnified or insured, can negatively impact our reputation among our customers and the public, and make it substantially more difficult for us to compete effectively for business, obtain and retain awards, ensure adequate funding for our programs or obtain adequate insurance in the future. See Note 10 to the consolidated financial statements for information regarding the company's investigations, claims and litigation. As a U.S. government contractor, we and our partners are subject to various procurement and other laws, regulations and contract terms applicable to our industry, as well as those more broadly applicable to industry, and changes in such laws, regulations or terms, any negative findings by the U.S. government as to our or our partners' compliance with them, and changes in our customers' business practices globally could affect our ability to compete and have a material adverse effect on our financial position, results of operations and/or cash flows. U.S. government contractors (including their subcontractors and others with whom they do business) must comply with various specific procurement laws, regulations, rules and other legal requirements, as well as ones more broadly applicable. These various legal requirements, although sometimes customary in government contracting, increase costs and risks. They have been and are evolving at a significant pace. The costs are not always fully recoverable. New laws or other requirements, or changes to existing ones (including, for example, related to cybersecurity, information and data protection, cost accounting, environment, sustainability, securities, competition, compensation costs, taxes, counterfeit parts, pensions, and use of certain non-US equipment) or more expansive interpretations or other changes in how government agencies construe existing ones, can significantly increase our costs and risks and reduce our profitability. We operate in a highly regulated environment and are routinely audited and reviewed by the U.S. government and its agencies, such as the DCAA, Defense Contract Management Agency (DCMA) and the DoD Inspector General. These agencies review performance under our contracts, our cost structure and accounting, our compliance, and the adequacy of our systems in meeting government requirements. Costs ultimately found to be unallowable or improperly allocated are generally not reimbursed or require us to refund the customer. When an audit uncovers improper or illegal activities, we are subject to possible civil and criminal penalties, sanctions, or suspension or debarment. Whether or not illegal activities are alleged, the U.S. government has the ability to decrease or withhold certain payments when it deems systems to be inadequate, with significant financial impact, regardless of the ultimate outcome. In addition, we risk serious reputational harm in situations involving allegations of impropriety made against us or our business partners. Our industry has experienced, and we expect it will continue to experience, significant changes to business practices globally, in part as a result of changes in the global security and threat environment and an increased focus on affordability, efficiencies, business systems, recovery of costs and a reprioritization of available defense funds. We have experienced and may continue to experience an increased number of audits and challenges to our claims and our business systems for current and past years, as well as longer periods to close audits, broader requests for information and an increased risk of withholdings of payments. The U.S. government has been pursuing and may continue to pursue policies that could negatively impact our profitability, including those that shift additional responsibility and performance risks to the contractor. Changes in procurement practices, including those favoring -12-NORTHROP GRUMMAN CORPORATION incentive-based fee arrangements; fixed price development or long-term production programs; different award criteria; and non-traditional contract provisions have affected and may in the future affect our profitability and predictability. We (including our subcontractors and others with whom we do business) also are subject to, and expected to perform in compliance with, a vast array of federal, state and local laws, regulations, contract terms and requirements related to our industry, our products and the businesses we operate, as well as those more broadly applicable to industry, such as securities laws and regulations. These requirements, whether specific to our industry or broadly applicable, can limit our ability to achieve our goals. If we are found to have violated any such requirements, or are found not to have acted responsibly, we may be subject to a wide array of actions, including contract modifications or termination; payment withholdings; the loss of export/import privileges; administrative, civil or criminal judgments or penalties (including convictions, agreements, fines, damages and non-monetary relief); or suspension or debarment. The improper conduct of employees, agents, subcontractors, suppliers, business partners or joint ventures in which we participate can impact our reputation and our ability to do business, which could have a material adverse effect on our financial position, results of operations and/or cash flows. We face potential liability based on misconduct by employees, agents or others working with us or on our behalf that could violate the applicable laws of the jurisdictions in which we operate, including laws governing improper payments to government officials, the protection of export controlled or classified information, false claims, procurement integrity, cost accounting and billing, competition, information security and data privacy, intellectual property and contract terms. Improper actions by our employees, agents or others working with us or on our behalf also subject us to risk of administrative, civil or criminal investigations and enforcement actions; monetary and non-monetary penalties; liabilities; and the loss of privileges and other sanctions, including suspension and debarment. We have in the past experienced and may in the future experience misconduct committed by our employees, agents, suppliers, partners or others working with us or on our behalf. This risk of improper conduct increases as we continue to expand globally, with greater opportunities and demands to do more business with local and new partners, and in new environments. At the same time, law enforcement agencies are continuing to focus collaboratively on combating global corruption and other misconduct. In the ordinary course we form and are members of joint ventures or other business arrangements and/or invest in third parties with whom we do business. We may be unable to prevent misconduct or violations of applicable laws by these joint ventures or our partners, including, in each case, their respective officers, directors and employees. Environmental matters, including climate change, unforeseen costs associated with compliance and remediation efforts, and government and third-party claims, could have a material adverse effect on our reputation and our financial position, results of operations and/or cash flows. Our operations are subject to and affected by a variety of federal, state, local and foreign environmental laws and regulations, including as they may be expanded, otherwise changed or enforced differently over time. Compliance with these existing and evolving environmental laws and regulations requires, and is expected to continue to require, significant operating and capital costs. For example, some of these recently enacted laws and regulations prohibit the use of certain chemicals or other substances that are used in our business, which has, in some cases, required us to identify alternate sources, resulting in additional costs and/or otherwise impacting our business and operations. New and evolving laws, regulations and rule makings globally impose different and at times more restrictive standards and require greater disclosures. For example, certain jurisdictions, including the State of California and the European Union, have enacted legislation which requires or would require more stringent greenhouse gas emissions and climate risk reporting. They could also require capital investments, could adversely impact our ongoing operations, and could require changes on a more accelerated time frame. We expect our suppliers to face similar challenges and incur additional compliance costs that may be passed on to us. These direct and indirect costs can adversely impact our results of operations and financial condition, and, if we are unable to comply with legislative and regulatory requirements or meet our sustainability objectives, our reputation and ability to do business could be negatively impacted. In addition, our customers' requirements, priorities and ways of doing business with respect to environmental matters, and climate change specifically, also may have an impact on our business, operations and financial success. Environmental matters may significantly impact our business and operations and present evolving risks and challenges. Environmental impacts, including climate change specifically, create short and long-term financial risks to our business globally. We have significant operations located in regions that have been, and may in the future be, exposed to significant weather events and other natural disasters. Increased worldwide focus on climate change has -13-NORTHROP GRUMMAN CORPORATION led to legislative and regulatory efforts to combat both potential causes and adverse impacts of climate change, including regulation of greenhouse gas emissions. New or more stringent laws and regulations related to greenhouse gas emissions and other climate change related concerns have affected and will likely continue to affect us, our suppliers and our customers. The company has set a goal to achieve net zero greenhouse gas emissions in our operations by 2035 and is committed to working to achieve its climate change and other sustainability goals. We are working to identify opportunities to utilize alternatives to fossil-based energy sources, to decrease our greenhouse gas emissions, to reduce our consumption of water and generation of waste, and to ensure our compliance with environmental regulations where we operate, enhancing our record of environmental sustainability. However, the costs of doing so may be greater than expected, which could affect our ability to achieve our goals. We may be subject to substantial administrative, civil or criminal fines, penalties or other sanctions (including suspension, debarment or disqualification) for violations of environmental laws. If we are found to be in violation of the Federal Clean Air Act or the Clean Water Act, the facility or facilities involved in the violation could be placed by the Environmental Protection Agency on a list of facilities that generally cannot be used in performing on U.S. government contracts until the violation is corrected. We incur, and expect to continue to incur, substantial remediation costs related to the cleanup of pollutants previously released into the environment. Stricter or different remediation standards or enforcement of existing laws and regulations; new requirements, including regulation of new substances; discovery of previously unknown or more extensive contamination or new contaminants; imposition of fines, penalties, or damages (including natural resource damages); a determination that certain remediation or other costs are unallowable; rulings on allocation or insurance coverage; and/or the insolvency, inability or unwillingness of other parties to pay their share, could require us to incur material additional costs in excess of those anticipated. We are and may become a party to various legal proceedings and disputes involving government and private parties (including individual and class actions) relating to alleged impacts from pollutants released into the environment, including bodily injury and property damage. For example, please see Note 10 for a discussion of certain disputes and lawsuits related to legacy Bethpage environmental conditions. These matters could result in material compensatory or other damages, remediation costs, penalties, and non-monetary relief, and adverse determinations on allowability or insurance coverage. Government and private parties also seek to hold us responsible for liabilities or obligations related to former operations that have been divested or spun-off and/or for which we believe other parties have agreed to be responsible and/or to indemnify us. These rights may not be sufficient to protect us. Unanticipated changes in our tax provisions or an increase in our tax liabilities, whether due to changes in applicable laws and regulations, the interpretation or application thereof, or a final determination of tax audits or litigation or agreements, could have a material adverse effect on our financial position, results of operations and/or cash flows. We are subject to income and other taxes in the U.S. and foreign jurisdictions. Changes in applicable tax laws and regulations, or their interpretation and application, including the possibility of retroactive effect, have affected and could affect our tax expense. In addition, the final determination of any tax audits or related litigation, in particular with regard to our positions on research credits, could be materially different from our historical income tax provisions and accruals. In addition, we may be subject to future tax audits and legal challenges involving OATK, which we acquired in 2018, or the spinoff of its then subsidiary Vista Outdoor, and we may be unable to obtain indemnification or we may be required to indemnify Vista. Cyber and other security threats or disruptions could have a material adverse effect on our reputation and our financial position, results of operations and/or cash flows. As a defense contractor, we face significant cyber and other security threats. They include, among other things, attempts to gain unauthorized access to sensitive information or otherwise compromise the integrity, confidentiality and/or availability of our systems, hardware and networks, and the information on them; insider threats; ransomware; threats to the safety of our directors, officers and employees; threats to our facilities, infrastructure, products (we produce and use), and subcontractors or other suppliers (referred to inclusively as suppliers); and threats from terrorist acts, espionage, civil unrest and other acts of aggression. We are also subject to increasing government, customer and other cyber and security requirements, including disclosure obligations. Cyber threats, both on premises and in the cloud, are complex, continuous and evolving and include, but are not limited to: malicious software, destructive malware, ransomware, targeting by more advanced and persistent -14-NORTHROP GRUMMAN CORPORATION adversaries, including nation states and other actors, zero-day attacks, attempts to gain unauthorized access to systems or data, disruption to operations, critical systems or denial of service attacks; unauthorized release of confidential, personal or other protected information (ours or that of our employees, customers or partners); corruption of data, networks or systems; harm to individuals; and loss of assets. We have been and could be impacted by cyber threats or other disruptions or vulnerabilities found in products or services we use or in our internal, partners' or customers' systems that are used in connection with our business. Further, the sophistication, availability and use of artificial intelligence by threat actors present an increased level of risk. We have experienced cyber attacks and, due to the evolving threat landscape, expect we will continue to experience additional attacks in the future. The various measures and controls we have implemented to monitor and mitigate risks associated with these threats and to increase the cyber resiliency of our infrastructure and products may not always be sufficient or fully effective, particularly against previously unknown vulnerabilities, including those that could go undetected for an extended period. Cyber events have caused and could cause us harm and require us to undertake remedial actions. Successful attacks can lead to losses or misuse of sensitive information or capabilities; theft or corruption of data; harm to personnel, infrastructure or products; protracted disruptions in our operations and performance; and the misuse of our products. They can also damage our reputation, impact our ability to obtain adequate insurance coverage, and lead to loss of business, regulatory actions, and costs, liabilities or other financial losses for which we may not have adequate sources of recovery. Our customers and partners (including our suppliers and joint ventures) to whom we entrust confidential data, and on whom we rely to provide products and services, face similar threats and growing requirements, including ones for which others may seek to hold us responsible. We depend on our customers, suppliers, and other business partners to implement and verify adequate controls and safeguards to protect against and report cyber incidents. If they fail to deter, detect, remediate or report cyber incidents in a timely manner, we may suffer financial and other harm, including to our information, operations, performance, employees and reputation. Further, the systems, products and services that we provide to customers may not be able to detect or deter threats, or effectively to mitigate resulting losses. These losses could adversely affect our customers and our company. We also face increasing and evolving disclosure obligations related to cyber and other security events and the risk of failing to meet all our existing or future disclosure obligations and/or having our disclosures misinterpreted. National security or public safety considerations may also affect, or in limited instances prevent, our public disclosure of a cybersecurity incident in certain circumstances. We also face threats to our physical security, including to our facilities and the safety and well-being of our people, including senior executives. These threats could involve terrorism, insider threats, targeted threats against senior executives, workplace violence, civil unrest, natural disasters, damaging weather or fires, which could adversely affect our company. Our customers and suppliers face similar risks that, if realized, could also adversely impact our operations. Such acts could cause delays, manufacturing downtime, or other impacts that could detrimentally impact our ability to perform our operations. We could also incur unanticipated costs to remediate impacts and lost business. For further discussion of our cybersecurity risk management, strategy and governance, see "Cybersecurity." Our earnings and profitability depend, in part, on subcontractor and supplier performance, financial viability, and compliance with regulatory requirements globally, as well as highly skilled labor, raw materials, chemicals, parts, and component availability and pricing, and one or more of these factors could have a material adverse effect on our financial position, results of operations and/or cash flows. We rely on other companies to provide raw materials, chemicals, parts and components and subsystems for our products, produce hardware elements and sub-assemblies, provide software and intellectual property, provide information about the parts they supply to us, and perform some of the services we need for our operations or provide to our customers, and to do so in compliance with all applicable laws, regulations and contract terms, while maintaining strong values and cultures. Disruptions or performance problems with our subcontractors or other suppliers (referred to inclusively as suppliers), unanticipated cost growth for the products and services they provide, failure to meet regulatory or contractual requirements, unethical or illegal behavior, or a misalignment between our contractual obligations to our customers and our agreements with our suppliers, have had and may continue to have various adverse impacts on the company, including on our ability to meet our commitments to customers and financial expectations. This risk of delays and disruptions in the supply chain, and supply chain challenges more broadly, has been and continues to be heightened globally due to the current macroeconomic environment. -15-NORTHROP GRUMMAN CORPORATION Our ability to perform our obligations on time is adversely affected if one or more of our suppliers is unable to provide the agreed-upon products, materials or information, or perform the agreed-upon services in a timely,

compliant and cost-effective manner. We also may experience challenges performing if we are unable to use certain raw materials, chemicals or other substances due to laws or other regulations that restrict or prohibit the use of such items or cause suppliers to be unwilling or unable to supply them and we cannot obtain a reasonable substitute on a cost-effective basis. Changes in political or economic conditions, including changes in demand, changes in the macroeconomic environment (including inflation and labor and supply chain challenges), changes in defense budgets and/or priorities, changes in the global security environment, changes in export/import restrictions, sanctions and other trade restrictive activities, evolving requirements, or changes in access to critical technology and materials (including metals and components), among others, have adversely affected and could in the future adversely affect the financial stability of our suppliers and/or their ability to perform effectively. The inability of our suppliers to perform effectively has required and may require us to provide them additional support and/or to transition to alternate suppliers, if available, with additional costs and delays. We expect we will need to continue to provide additional resources to support certain of our suppliers in performing under our contracts. In addition, if we are unable to do that or if our suppliers are no longer able to perform due to financial difficulties, we may face additional losses and liabilities under our current contracts and adversely impact the prospects for certain new ones. In connection with our U.S. government contracts, we are required to procure certain materials, components and parts from supply sources approved by the customer and/or are restricted from procuring products or services from certain sources. For example, we require assured access to certain microelectronics. Our ability to produce and/or deliver products will be significantly impacted if the microelectronics manufacturing supply chain is cut off or significantly delayed. For some components, there has been or may be only one supplier, or one domestic supplier. If that supplier cannot meet our needs or if we are unable to procure components from certain suppliers due to regulatory restrictions, we may be unable to find a suitable alternative and to meet our obligations. We and our suppliers are also facing increased legal requirements globally. We may be held responsible not only for our compliance, but that of our suppliers. Our procurement practices are intended to reduce the risk we procure counterfeit, unauthorized or otherwise non-compliant parts or materials. We rely on our suppliers also to comply with applicable laws, customer requirements and contract terms, to ensure the quality of their components and effectively to mitigate the risk of cyber and security threats or other disruptions to their performance. If we are unable to attract and retain a qualified workforce necessary for our business, we may be unable to maintain our competitive position, meet the needs of our customers or achieve our results, which could have a material adverse effect on our financial position, results of operations and/or cash flows. Our operating results and growth opportunities are heavily dependent upon our ability to attract and retain sufficient qualified personnel who are or can reasonably be cleared (and obtain program access), who have the requisite skills in multiple areas, including science, technology, engineering and math, and who share our values and are able to operate effectively consistent with our culture. Outside the U.S., it is increasingly important that we are also able to attract and retain personnel with relevant local qualifications and experience. We continue to face increased competition for talent with traditional defense companies, new entrants in our markets and commercial companies, globally, with increasing wage rates and, in some cases, greater flexibility around working conditions. Although we have realized benefits from extensive hiring and retention programs in recent years, the risk of insufficient personnel may increase, either broadly or with respect to select critical staffing requirements, including those with security clearances. If necessary qualified personnel are more scarce or more difficult to attract or retain under reasonable terms, or if we experience a high level of attrition, generally or in particular areas, or if such personnel are increasingly unable to obtain security clearances or program access on a timely basis or are unable to be timely and effectively trained, we would expect higher labor-related costs and we could face challenges performing on various of our programs and meeting financial expectations. In addition, the macroeconomic environment, including continued challenges in the global labor market, may further affect our ability to hire, develop and retain the necessary workforce, and to maintain performance levels and our corporate culture. Certain of our employees are covered by collective agreements. We generally have been able to renegotiate renewals to expiring agreements without significant disruption of operating activities. However, other companies recently have experienced challenges in renewing labor agreements. If, for example, we also experience difficulties with renewals and renegotiations of existing collective agreements, or if our employees pursue new collective representation, we could incur additional expenses and impacts on operating efficiency and may be subject to work stoppages or other labor-related disruptions. Any such expenses or delays could adversely affect our performance and results.

**16-NORTHROP GRUMMAN CORPORATION** Our international business exposes us to additional risks, including risks related to geopolitical and economic factors, laws and regulations, which could have a material adverse impact on our financial position, results of operations and/or cash flows. Sales to customers outside the U.S. are an important component of our strategy. Our international business (including our participation in joint ventures and other forms of collaboration, requirements for local content, and our global supply chain) is subject to numerous political and economic factors, legal requirements, cross-cultural considerations and other risks associated with doing business globally. These risks differ in some respects from those associated with our U.S. business and our exposure to such risks is expected to increase if and as our international business continues to grow. Our international business is generally subject to both U.S. and foreign laws, regulations and practices. Failure by us, our employees, partners or others with whom we work to comply with applicable laws and regulations could result in administrative, civil, commercial or criminal liabilities, including suspension or debarment from government contracts or suspension of export/import privileges. Failure to comply with local practices can adversely impact our ability to win and perform business. New regulations and requirements, or changes to existing ones in countries in which we operate can significantly increase our costs and risks of doing business internationally. Our customers outside of the U.S. also often have the ability to terminate contracts for convenience as well as for default based on performance. Suspension or debarment, or termination of a contract due to default could have a material adverse effect on our reputation, our ability to compete for other contracts and our financial position, results of operations and/or cash flows. We also face risks related to the unintended or unauthorized use of our products and resources. Changes in laws, political leadership and environment, and/or security risks may dramatically affect our ability to conduct or continue to conduct business in international markets. Our international business is impacted by changes in U.S. and non-U.S. national policies and priorities, and geopolitical relationships, any of which may be influenced by changes in the global threat environment, political leadership, geopolitical and economic uncertainties, world events, government budgets, inflationary pressures, sanctions imposed in countries where we do business or seek to do business, and economic and political factors more generally. The U.S. and its allies and security partners continue to face a global security environment of heightened tensions and instability, threats from state and non-state actors, including major global powers, as well as terrorist organizations, emerging nuclear tensions, and diverse regional security concerns. These factors have impacted and may in the future impact demand for our products and services, the competitive position of our products and services, funding for programs, our ability to perform, our supply chain, export authorizations, purchasing decisions or customer payments. Global macroeconomic conditions, as well as fluctuations in foreign currency exchange rates and credit, are also likely to further impact our business. Our contracts with non-U.S. customers in some cases include terms and reflect legal requirements that create additional risks. Terms include requirements to hire, invest, manufacture or purchase locally, or specific financial obligations, including offset obligations, and provisions that impose significant penalties if we fail to meet such requirements. We have also been required to enter into letters of credit, performance bonds, bank guarantees or other financial arrangements in certain cases. If we are dependent on certain suppliers, as in the U.S., we face risks related to their failure to perform in accordance with legal requirements, particularly where we rely on a sole source supplier. Our ability to sell products globally could be adversely affected if we are unable to design our products on a cost effective basis or to obtain and retain all necessary export authorizations, which the U.S. government can deny, change or revoke for reasons outside our control. Our business outside of the U.S. also depends on our ability to attract and retain sufficient qualified personnel with the skills and/or security clearances in the markets in which we do business. We also partner with non-U.S. companies, including through joint ventures and other forms of collaboration, which subjects us to risks related to the ability to identify and negotiate appropriate arrangements with qualified and acceptable local partners, potential exposure for their actions, and the ability effectively to terminate these arrangements. Such risks are complicated further when we partner with government-affiliated entities. The products and services we provide, including those provided by suppliers and joint ventures, are sometimes in countries with unstable governments, economic or fiscal challenges, military or political conflicts, different business practices and/or developing legal systems. This may increase the risk to our employees, suppliers or other third parties, including for their safety, and increase our risk to a wide range of financial consequences and other liabilities, as well as loss of property or damage to our products.

**16-NORTHROP GRUMMAN CORPORATION** Our business is subject to significant disruptions caused by natural disasters or other events outside of our control, which could have a material adverse effect on our financial position, results of operations and/or cash flows.

**17-NORTHROP GRUMMAN CORPORATION** We have significant operations, including centers of excellence, located in regions that have been, and may in the future be, exposed to hurricanes, earthquakes, water levels, wildfires, windstorms, heat waves, other extreme weather conditions, acts of terrorism, power shortages and blackouts, telecommunications failures and other significant disruptions, and epidemics, pandemics, and similar outbreaks, especially of infectious diseases. We expect our facilities, operations, employees and communities in the future, particularly at facilities prone to extreme weather events, such as in Florida and California, to continue to be at risk for future natural disasters or other weather events (which may be exacerbated by climate change). Climate related changes can impact natural disasters, including weather patterns, with the increased frequency and severity of significant weather events (e.g., flooding, hurricanes and tropical storms), natural hazards (e.g., increased wildfire risk), rising mean temperature and sea levels, and long-term changes in precipitation patterns (e.g., drought, desertification, water scarcity and/or poor water quality). Such natural disasters and other significant disruptions can interrupt our operations, impact our employees, and result in significant costs and adversely affect our performance. Our subcontractors and other suppliers have also been, and may in the future be, subject to natural disasters or other significant disruptions that could affect their ability to deliver or perform. Disruptions also impact the availability and cost of materials needed for manufacturing and can increase insurance and other operating costs, or result in a lack of available coverage. Although we take steps to mitigate these risks, including considering them in determining where to put new businesses, the damage and adverse effects of natural disasters and other significant disruptions, which may increase, as well as delays in recovery, may be significant.

**18-NORTHROP GRUMMAN CORPORATION** Our future success depends, in part, on our ability to innovate, develop new products and technologies, progress and benefit from digital transformation and maintain technologies, facilities and equipment to win new competitions and meet the needs of our customers. Failure to do so or meet our contractual obligations that require innovative design could adversely affect our profitability, reputation and future prospects and have a material adverse effect on our financial condition, results of operations and/or cash flows. We design, develop and manufacture technologically advanced and innovative products and services, which are applied by our customers in a variety of environments, including highly demanding operating conditions, to accomplish challenging missions. Our success depends upon our ability to develop technologically advanced, innovative and cost-effective products and services and market these products and services to our customers globally. Our ability to develop innovative and technologically advanced products depends on the talent of our workforce, continued funding for, and investment in, research and development projects, continued access to assured suppliers of important technologies and components, our ability to compete (including with commercial companies) and our ability to provide the people, technologies, facilities, equipment and financial capacity needed to develop and deliver those products and services with maximum efficiency. To perform on our contracts and to win new business, we also depend increasingly on our ability to progress successfully on our digital transformation strategy. To meet evolving customer requirements, it is increasingly necessary to differentiate our offerings and to achieve efficiencies in our operations through digital based solutions. If we are unable to continue to develop new products and technologies in a timely fashion, and progress successfully to effect digital solutions and transformation, or if we fail to achieve market acceptance more rapidly than our competitors, we may be unable to maintain our competitive position and our future success could be materially adversely affected. We aim to ensure that our technical solutions are responsibly developed, tested and operated. Problems and delays in the successful development and delivery of our solutions, including as a result of issues with design, technology or operations, digital transformation, inability to achieve learning curve assumptions, artificial intelligence, manufacturing materials or components, or subcontractor (or other supplier) performance can prevent us from meeting requirements and create significant risk and liabilities. Similarly, failures to perform on schedule or otherwise to fulfill our contractual obligations can negatively impact our financial position, reputation and ability to win future business. In addition, our products cannot be tested and proven in all situations and are otherwise subject to unforeseen problems that can negatively affect revenue, schedule and profitability, and result in loss of life or property. They include loss on launch or flight of spacecraft, loss of aviation platforms, premature failure of products that cannot be accessed for repair or replacement, unintended explosions, problems with design, quality and workmanship, country of origin of procured materials, inadequate supplier components and degradation of product performance. Factors that may affect revenue and profitability also include: inaccurate cost estimates, design issues, human factors, unforeseen costs and expenses, diversion of management focus, loss of follow-on work, replacement obligations, and repayment to the government customer of certain contract cost and fee payments previously received.

**18-NORTHROP GRUMMAN CORPORATION** Certain contracts, primarily involving space satellite systems, contain provisions that entitle the customer to recover payments and/or fees in the event of failure of the system or other performance challenges upon launch or subsequent deployment for less than a specified period of time. Under such terms, we are generally required to forfeit fees previously recognized and/or collected. We provide products and services, including related to hazardous and high risk operations, which subjects us to various environmental, regulatory, financial, reputational and other risks, and if any of these risks were to materialize, it could have a material adverse effect on our reputation and our financial position, results of operations and/or cash flows. We provide products and services related to hazardous and high risk operations. Among other such operations, our products and services are used in nuclear-related activities (including nuclear-powered platforms) and used in support of nuclear-related operations of third parties. In addition, certain of our products are provided with space and missile launches. We use and provide energetic materials, including in propulsion systems, which are highly explosive and flammable. We develop missile systems, and counter systems, including strategic deterrents, as well as subsystems and components. These and other activities subject us to various extraordinary risks, including those associated with (1) nuclear-related or non-nuclear launch activities and operations, including failed launches; (2) unintended release or initiation of energetic materials and explosions, whether in the development, test or use of such energetic materials; and (3) the storage, handling and disposal of radioactive and other hazardous or flammable materials and any changes in related regulations. We may be subject to potential liabilities, including for personal injury and harm to human health, property damage, environmental harm, and reputational harm arising out of such incidents or hazardous activities and operations, whether or not the cause was within our control, and insurance may not be reasonably available. Under some circumstances, the U.S. government and prime contractors may provide for certain indemnification and other protection, including pursuant to, or in connection with, Public Law 85-804, 10 U.S.C. 3861, the Price-Anderson Nuclear Industries Indemnity Act, the NASA Space Act, the Commercial Space Launch Act and the Terrorism Risk Insurance Reauthorization Act, for certain risks, but those protections may not be available or adequate. Certain of our products, such as medium and large caliber ammunition and propulsion systems, involve the use, manufacture and/or handling of a variety of explosive and flammable materials or other hazardous substances. These activities have resulted and may result in incidents that cause workplace injuries and fatalities, the temporary shut down or other disruption of manufacturing, production delays, environmental harm and expense, fines and liabilities to third parties. We have safety and loss prevention programs, which provide for pre-construction reviews, along with safety audits of operations involving explosive materials, to attempt to avoid or mitigate some such incidents, as well as potentially insurance coverage and indemnification to address resulting liabilities, but they may not be successful. In addition, our customers may use, handle or test our products and services in ways that can be unusually hazardous or risky, or in ways that are not intended, not authorized or inconsistent with guidance and warnings, which may create potential liabilities for our company, as well as reputational harm. We may not be able to adequately protect and fully exploit our intellectual property rights or obtain necessary rights to intellectual property of others, which could materially and adversely affect our ability to compete and perform on contracts, and have a material adverse effect on our reputation and our financial position, results of operations and/or cash flows. To perform on our contracts and to win new business, we depend on our ability to develop, protect and exploit our intellectual property and use the intellectual property of others. Increasing demands from our customers to access and obtain rights in our intellectual property, and positions taken by our suppliers and competitors challenge our ability to protect and exploit intellectual property. We own many forms of intellectual property, including trade secrets, U.S. and foreign patents, trademarks, and copyrights, and we license or otherwise obtain access to various intellectual property rights of third parties. The U.S. government and certain foreign governments hold licenses or other rights to certain intellectual property that we develop in performance of government contracts, and at times seek to use or authorize others to use such intellectual property, including in competition with us. Governments continue to increase efforts to obtain more extensive rights in contractors' intellectual property, including where we do not believe they are entitled to do so under current law. This could reduce our ability to develop, protect and exploit certain of our intellectual property rights and to compete.

**19-NORTHROP GRUMMAN CORPORATION** Our products and services embody valuable trade secrets, proprietary information and know-how. We typically seek to protect this

information by entering into confidentiality and intellectual property agreements with our employees and third parties such as consultants, collaborators and suppliers. These agreements and other measures may not provide adequate protection for our trade secrets and other proprietary information. In the event of misuse, theft or misappropriation of such intellectual property rights or breach of confidentiality obligations, we may not have adequate legal remedies. In addition, our trade secrets or other proprietary information may otherwise become known or be independently developed by competitors. In some instances, our ability to win or perform contracts requires us to use third party intellectual property. This may require the government or our customer to provide rights to such third party intellectual property or for us to negotiate directly with third parties to obtain necessary rights on reasonable terms, which may not be practicable. Our intellectual property is subject to challenge, invalidation, or circumvention by third parties. Our access to and use of intellectual property licensed or otherwise obtained from third parties is also subject to challenges. Litigation to determine the scope of intellectual property rights, even if ultimately successful, has been and could in the future be costly. Moreover, the legal framework concerning intellectual property rights varies among countries and the protections under foreign laws and courts may not be favorable. General and Other Risk Factors

Our insurance coverage, customer indemnifications or other liability protections may be unavailable or inadequate to cover our significant risks, which could have a material adverse effect on our financial position, results of operations and/or cash flows. We endeavor to obtain insurance from financially stable, responsible, highly rated counterparties in established markets to cover significant risks and liabilities (including, for example, natural disasters, space launches and on-orbit operations, cyber security, hazardous operations, energetics and products liability). Not every risk or liability can be insured, and insurance coverage is not always reasonably available. The policy limits and terms of coverage reasonably obtainable may not be sufficient to cover actual losses or liabilities. For example, the space insurance markets are experiencing increased price volatility and capacity constraint. Due to recent increases in the frequency and severity of losses, insurers are decreasing limits, increasing pricing and some have exited the market. Even if insurance coverage is available, we are not always able to obtain it at a price or on terms acceptable to us or without increasing exclusions. Disputes with insurance carriers over the availability of coverage, and the insolvency of one or more of our insurers has affected and may continue to affect the availability or timing of recovery, as well as our ability to obtain insurance coverage at reasonable rates in the future. In some circumstances we may be entitled to certain legal protections or indemnifications from our customers through contractual provisions, laws or otherwise. However, these protections are not always available, are difficult to negotiate and obtain, are typically subject to certain terms or limitations, including the availability of funds, and may not be sufficient to cover our losses or liabilities. Pension and other postretirement benefit (OPB) obligations and related expenses and funding requirements may fluctuate significantly depending upon investment performance of plan assets, changes in actuarial assumptions, and legislative or other regulatory actions. The company's pension and OPB obligations and related expenses are dependent upon the investment performance of plan assets and various assumptions, including discount and interest rates, mortality and the estimated long-term rates of return on plan assets. Changes in assumptions associated with our pension and OPB plans, investment performance of plan assets, and gains or losses associated with changes in valuation of marketable securities related to our non-qualified plans and other non-operating assets could have a material adverse effect on our financial position, results of operations and/or cash flows. Funding requirements for our pension plans, including Pension Benefit Guaranty Corporation premiums, are subject to legislative and other government regulatory actions. In accordance with government regulations, pension plan cost recoveries under our U.S. government contracts may occur in different periods from when they are recognized for financial statement purposes or when pension funding is made. These timing differences, as well as government challenges to pension and OPB cost recovery, could have a material adverse effect on our financial position, results of operations and/or cash flows. Business investments and/or recorded goodwill and other long-lived assets may become impaired, which could have a material adverse effect on our financial condition and/or results of operations. Goodwill is an intangible asset that we recognize in connection with acquisitions of third-party businesses. Goodwill accounts for approximately 35 percent of our total assets as of December 31, 2024. Other long-lived assets - NORTHROP GRUMMAN CORPORATION principally comprise property, plant and equipment (PP&E) used in operating our business. The cost of PP&E utilized in support of our commercial business, including approximately \$575 million of PP&E in our commercial space business, is not allocable to government contracts and is therefore subject to greater recoverability risk than PP&E utilized in support of our U.S. government contracts. Although the fair value of our reporting units and the net realizable value of our other long-lived assets currently exceed their respective carrying values, changes in business conditions, the market-based inputs used in our goodwill impairment test, or our assumptions related to the recoverability of our long-lived assets, could result in significant write-offs of goodwill or other long-lived assets. Item 1B. Unresolved Staff Comments None. Item 1C. Cybersecurity We recognize the critical importance of maintaining the safety and security of our systems and data and have a holistic process for overseeing and managing cybersecurity and related risks. This process is supported by both management and our Board of Directors. In 2024, our global cybersecurity function was maintained in our Chief Information Office, led by our Chief Information Officer (CIO), who reported to our CEO. In 2025, we have brought together our chief information and digital transformation offices into a newly formed Chief Information and Digital Office, led by our Chief Information and Digital Officer (CIDO), who reports to the CEO. The Chief Information Security Officer (CISO), who previously reported to the CIO, now reports to the CIDO and continues to lead our cybersecurity functions. The CISO is responsible for the assessment and management of cybersecurity risk and the resiliency, protection and defense of our networks and systems. The CISO leads a team of cybersecurity professionals with broad experience and expertise, including in cybersecurity threat assessments and detection, mitigation technologies, cybersecurity training, incident response, cyber forensics, data protection, privacy, insider threats and regulatory compliance. The current CISO is an executive with extensive technical and operational experience in building and leading cybersecurity and resiliency teams in the industry and government. Our Board of Directors is responsible for overseeing our enterprise risk management activities in general, and each of our Board committees assists the Board in the role of risk oversight. The full Board receives an update on the company's risk management process and the risk trends related to cybersecurity at least annually. The Audit and Risk Committee specifically assists the Board in its oversight of risks related to cybersecurity. To help ensure effective oversight, the CISO briefs the Audit and Risk Committee on the company's information security and cybersecurity risk posture at least four times a year. In addition, the company's Enterprise Risk Management Council (ERMC) considers risks relating to cybersecurity, among other significant risks, and applicable mitigation plans to address such risks. The ERMC is comprised of the Executive Leadership Team, as well as the Chief Accounting Officer, Chief Ethics and Compliance Officer, Corporate Secretary, Chief Sustainability Officer, Treasurer and Vice President, Internal Audit. The CISO and the CIDO (previously the CIO) attend each ERMC meeting. The ERMC meets during the year and receives periodic updates from the CIDO and CISO on cybersecurity risks. We have an established process governing our response to a cybersecurity incident from detection to mitigation, recovery, assessment, internal and external notifications and functional stakeholder engagements with legal, privacy and risk management, among others. Depending on the nature and severity of an incident, this process provides for escalating notification to our CEO and the Board (including our Lead Independent Director and the Audit and Risk Committee chair), as appropriate. Our approach to cybersecurity risk management includes the following key elements:

- Multi-Layered Defense and Continuous Monitoring - We work to protect our computing environments and products from cybersecurity threats through multi-layered defenses and apply lessons learned from our defense and monitoring efforts to help prevent future attacks. We utilize data analytics to detect anomalies and search for cyber threats. Our Cybersecurity Operations Center provides comprehensive cyber threat detection and response capabilities and maintains a 24x7 monitoring system which complements the technology, processes and threat detection techniques we use to monitor, manage and mitigate cybersecurity threats or vulnerabilities. From time to time, we engage third-party consultants or other advisors to assist in assessing, identifying and/or managing cybersecurity threats. We also periodically use our Internal Audit function to conduct additional reviews and assessments.
- Insider Threats - We maintain an insider threat program, led by our Vice President, Corporate and Enterprise Security, designed to identify, assess, and address potential risks from within our company. Our - NORTHROP GRUMMAN CORPORATION
- Information Sharing and Collaboration - We work with government, customer, industry and/or supplier partners, such as the National Defense Information Sharing and Analysis Center and other government-industry partnerships, to gather and develop best practices and share information to address cyber threats. These relationships enable the rapid sharing of threat and vulnerability mitigation information across the defense industrial base and supply chain.
- Third Party Risk Management - We conduct cybersecurity assessments before sharing or allowing the hosting or processing of sensitive data in computing environments managed by third parties, and our standard terms and conditions contain contractual provisions requiring certain cybersecurity and data protections and controls. Finally, we require these third parties to notify us promptly of cyber incidents or data breaches so that we can assess potential impact on us.
- Training and Awareness - We provide annual cybersecurity and information security awareness training to our employees with network access to help identify, avoid and mitigate cybersecurity threats and insider risks. This training also includes awareness about the policies and guidance associated with data privacy and protection of personal information, and protection and security of our company, customer and other third-party data. Our employees with network access also participate in annual spear phishing exercises. We also periodically host cybersecurity and ransomware tabletop exercises with management and other company functional stakeholders to practice rapid cyber incident response.
- Supplier Engagement - We provide training and other resources to our suppliers to support cybersecurity resiliency and data security principles in our supply chain. We also require our suppliers, subcontractors and third-party service providers to comply with our standard cybersecurity-related terms and conditions, in addition to any requirements from our customers, as a condition of doing business with us, and require them to complete information security questionnaires to review and assess any potential cyber-related risks depending on the nature of the services or products being provided.
- Third Party Cybersecurity Service Providers - We engage third party service providers to expand the capabilities and capacity of our cybersecurity program, including for design, monitoring and testing of the program's risk prevention and protection measures and process execution, including incident detection, investigation, analysis and response, eradication and recovery. Additionally, several external entities evaluate our cybersecurity program, including the U.S. Defense Contract Management Agency, the Defense Industrial Base Cybersecurity Assessment Center and a Cybersecurity Maturity Model Certification Third Party Assessment Organization, to assess and certify our cybersecurity regulatory compliance. We also engage with external auditors and consultants who conduct audits and assessments of our cybersecurity controls.
- Product Security - We provide cyber threat intelligence to, and collaboration with, our product security teams and share expertise in cyber vulnerability, exploit and resilience technology that can be applied to network infrastructure and company product offerings. While we have experienced cybersecurity incidents in the past, to date none have materially affected the company or our financial position, results of operations and/or cash flows. We continue to invest in the cybersecurity and resiliency of our networks and products and to enhance our internal controls and processes, which are designed to help protect our programs, systems and infrastructure, and the information they contain. For more information regarding the risks we face from cybersecurity threats, please see Risk Factors.

FORWARD-LOOKING STATEMENTS AND PROJECTIONS This Annual Report on Form 10-K and the information we are incorporating by reference contain statements that constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as expect, anticipate, intend, may, could, should, plan, project, forecast, believe, estimate, guidance, outlook, trends, goals and similar expressions generally identify these forward-looking statements. Forward-looking statements include, among other things, statements relating to our future financial condition, results of operations and/or cash flows. Forward-looking statements are based upon assumptions, expectations, plans and projections that we believe to be reasonable when made, but which may change over time. These statements are not guarantees of future performance and inherently involve a wide range of risks and uncertainties that are difficult to predict. Specific risks that could cause actual results to differ materially from those expressed or implied in these forward-looking statements include, but are not limited to, those identified in - NORTHROP GRUMMAN CORPORATION

under Risk Factors and other important factors disclosed in this report and from time to time in our other filings with the SEC. They include:

- Industry and Economic Risks - our dependence on the U.S. government for a substantial portion of our business;
- significant delays or reductions in appropriations and/or for our programs, and U.S. government funding and program support more broadly, including as a result of a prolonged continuing resolution and/or government shutdown, and/or related to the global security environment or other global events;
- significant delays or reductions in payments as a result of or related to a breach of the debt ceiling;
- the use of estimates when accounting for our contracts and the effect of contract cost growth and our efforts to recover or offset such costs and/or changes in estimated contract costs and revenues, including as a result of inflationary pressures, labor shortages, supply chain challenges and/or other macroeconomic factors, and risks related to management's judgments and assumptions in estimating and/or projecting contract revenue and performance which may be inaccurate;
- increased competition within our markets and bid protests;
- continued pressures from macroeconomic trends, including on costs, schedules, performance and ability to meet expectations;
- Legal and Regulatory Risks - investigations, claims, disputes, enforcement actions, litigation (including criminal, civil and administrative) and/or other legal proceedings;
- changes in procurement and other laws, SEC, DoD and other rules and regulations, contract terms and practices applicable to our industry, findings by the U.S. government as to our compliance with such requirements, more aggressive enforcement of such requirements and changes in our customers' business practices globally;
- the improper conduct of employees, agents, subcontractors, suppliers, business partners or joint ventures in which we participate, including the impact on our reputation and our ability to do business;
- environmental matters, including climate change, unforeseen environmental costs and government and third-party claims;
- unanticipated changes in our tax provisions or exposure to additional tax liabilities;
- Business and Operational Risks - cyber and other security threats or disruptions faced by us, our customers or our suppliers and other partners, and changes in related regulations;
- the performance and viability of our subcontractors and suppliers and the availability and pricing of raw materials, chemicals, parts and components, particularly with inflationary pressures, increased costs, shortages in labor and financial resources, supply chain disruptions, and extended material lead times;
- our ability to attract and retain a qualified and talented workforce with the necessary security clearances to meet our performance obligations;
- our exposure to additional risks as a result of our international business, including risks related to global security, geopolitical and economic factors, misconduct, suppliers, laws and regulations;
- natural disasters, epidemics, pandemics and similar outbreaks and other significant disruptions;
- our ability to innovate, develop new products and technologies, progress and benefit from digital transformation and maintain technologies to meet the needs of our customers;
- products and services we provide related to hazardous and high risk operations, including the production and use of such products, which subject us to various environmental, regulatory, financial, reputational and other risks;
- our ability appropriately to protect and exploit intellectual property rights

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General and Other Risk Factors

the adequacy and availability of, and ability to obtain, insurance coverage, customer indemnifications or other liability protections;

the future investment performance of plan assets, gains or losses associated with changes in valuation of marketable securities related to our non-qualified benefit plans, changes in actuarial assumptions associated with our pension and other postretirement benefit plans and legislative or other regulatory actions impacting our pension and postretirement benefit obligations;

changes in business conditions that could impact business investments and/or recorded goodwill or the value of other long-lived assets, and other potential future liabilities;

You are urged to consider the limitations on, and risks associated with, forward-looking statements and not unduly rely on the accuracy of forward-looking statements. These forward-looking statements speak only as of the date this report is first filed or, in the case of any document incorporated by reference, the date of that document. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. Item 2. Properties At December 31, 2024, we had approximately 52 million square feet of floor space at 466 separate locations, primarily in the U.S., for manufacturing, warehousing, research and testing, administration and various other uses. We leased to third parties approximately 37,000 square feet of our owned and leased facilities. The company's major operations are at the following locations:

Aeronautics Systems

- El Segundo, Mojave, Palmdale, and San Diego, CA;
- Melbourne and St. Augustine, FL;
- Iuka and Moss Point, MS;
- Beaver Creek, OH;
- Oklahoma City, OK;
- and Clearfield, UT.

Defense Systems

- Huntsville and Madison, AL;
- Mesa and Sierra Vista, AZ;
- Northridge, CA;
- Warner Robins, GA;
- Lake Charles, LA;
- Elkton, MD;
- Elk River and Plymouth, MN;
- Ogden and Roy, UT;
- Dulles, McLean and Radford, VA;
- and Keyser, WV.

Locations outside the U.S. include

- Australia: Mission Systems
- McClellan, San Diego, Sunnyvale and Woodland Hills, CA;
- Apopka, FL;
- Rolling Meadows, IL;
- Annapolis, Annapolis Junction, Elkridge, Halethorpe, Linthicum and Sykesville, MD;
- Bethpage and Williamsville, NY;
- Cincinnati, OH;
- Salt Lake City, UT;
- and Chantilly, Charlottesville and Fairfax, VA.

Locations outside the U.S. include

- France, Germany, Italy and the United Kingdom.

Space Systems

- Huntsville, AL;
- Chandler and Gilbert, AZ;
- Azusa, Carson, Los Angeles, Manhattan Beach, Oxnard, Redondo Beach and San Diego, CA;
- Aurora, Boulder, and Colorado Springs, CO;
- Beltsville, MD;
- Devens, MA;
- Clearfield,



Corinne, Magna, Salt Lake City and Tremonton, UT; and Dulles, McLean and Sterling, VA. Corporate Falls Church, VA The following is a summary of our floor space at December 31, 2024: Square feet (in thousands) Owned/Leased U.S.A Government Owned/Leased Total Aeronautics Systems 3,141A 6,305A 3,451A 12,897A Defense Systems 921A 4,857A 2,285A 8,063A Mission Systems 8,055A 4,110A 12,165A Space Systems 10,640A 7,150A 589A 18,379A Corporate 372A 268A 640A Total 23,129A 22,690A 6,325A 52,144A We maintain our properties in good operating condition and believe the productive capacity of our properties is adequate to meet current contractual requirements and those for the foreseeable future. -24-NORTHROP GRUMMAN CORPORATION A A A A A A A A A A A A A A A A A A A A A A A A Item 3. Legal Proceedings We have provided information about certain legal proceedings in which we are involved in Notes A 10 and 11 to the consolidated financial statements. We are a party to various investigations, lawsuits, arbitration, claims, enforcement actions and other legal proceedings, including government investigations and claims, that arise in the ordinary course of our business. These types of matters could result in administrative, civil or criminal fines, penalties or other sanctions (which terms include judgments or convictions or consent or other voluntary decrees or agreements); compensatory, treble or other damages; non-monetary relief; or other liabilities. Government regulations provide that certain allegations against a contractor may lead to suspension or debarment from future government contracts or suspension of export privileges for the company or one or more of its components. The nature of legal proceedings is such that we cannot assure the outcome of any particular matter. For additional information on pending matters, please see Notes 10 and 11 to the consolidated financial statements, and for further information on the risks we face from existing and future investigations, lawsuits, arbitration, claims, enforcement actions and other legal proceedings, please see Risk Factors. Consistent with SEC Regulation S-K Item 103, we have elected to disclose those environmental proceedings with a governmental entity as a party where the company reasonably believes such proceeding would result in monetary sanctions, exclusive of interest and costs, of \$1.0 million or more. Item 4. Mine Safety Disclosures No information is required in response to this item. -25-NORTHROP GRUMMAN CORPORATION A A A A A A A A A A A A A A A A A A A A A A A A PART A II Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities COMMON STOCK We have 800,000,000 shares authorized at a \$1 par value per share, of which 144,952,026 shares and 150,109,271 shares were issued and outstanding as of December 31, 2024 and 2023, respectively. PREFERRED STOCK We have 10,000,000 shares authorized at a \$1 par value per share, of which no shares were issued and outstanding as of December 31, 2024 and 2023. MARKET INFORMATION Our common stock is listed on the New York Stock Exchange and trades under the symbol NOC.HOLDERS As of January 27, 2025, there were 17,776 common shareholders of record. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS Period Number of Shares Purchased Average Price Paid per Share (1) Number of Shares Purchased as Part of Publicly Announced Plans or Programs Approximate Dollar Value of Shares that May Yet Be Purchased under the Plans or Programs (\$ in millions) (2) September 28, 2024 - October 25, 2024 150,761A \$530.15A 150,761A \$1,483A October 26, 2024 - November 22, 2024 335,909A 506.90A 335,909A 1,313A November 23, 2024 - December 31, 2024 376,550A 478.58A 376,550A 4,133A Total 863,220A \$498.61A 863,220A 4,133A (1) Excludes commissions paid and other costs of execution, including taxes. (2) The value remaining on December 31, 2024 includes an additional \$3.0 billion share repurchase authorization approved by the company's board of directors on December 11, 2024. Share repurchases take place from time to time, subject to market and regulatory conditions and management's discretion, in the open market or in privately negotiated transactions. The company retires its common stock upon repurchase and, in the periods presented, has not made any purchases of common stock other than in connection with these publicly announced repurchase programs. See Note 2 to the consolidated financial statements for further information on our share repurchase programs. -26-NORTHROP GRUMMAN CORPORATION A A A A A A A A A A A A A A A A A A A A A A A A STOCK PERFORMANCE GRAPH Comparison of Cumulative Five Year Total Return Among Northrop Grumman, the Standard & Poor's (S&P) 500 Index and the S&P Aerospace & Defense (A&D) Index. Assumes \$100 invested at the close of business on December 31, 2019, in Northrop Grumman Corporation common stock, the S&P 500 Index and the S&P A&D Index. The cumulative total return assumes reinvestment of dividends. The S&P A&D Index is comprised of Axon Enterprise, Inc., The Boeing Company, General Dynamics Corporation, General Electric Company, Howmet Aerospace Inc., Huntington Ingalls Industries Inc., L3Harris Technologies, Inc., Lockheed Martin Corporation, Northrop Grumman Corporation, RTX Corporation, Textron Inc., and TransDigm Group Incorporated. This graph is not deemed to be filed with the SEC or subject to the liabilities of Section 18 of the Securities Exchange Act of 1934 (the Exchange Act), and should not be deemed to be incorporated by reference into any of our prior or subsequent filings under the Securities Act of 1933 or the Exchange Act. Item 6. [Reserved] -27-NORTHROP GRUMMAN CORPORATION A A A A A A A A A A A A A A A A A A A A A A A A Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations OVERVIEW The following discussion should be read along with the financial statements included in this Form 10-K, as well as Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) of our Form 10-K for the year ended December 31, 2023 (2023 Annual Report on Form 10-K). To the extent the July 1, 2024 SDS realignment impacted the disclosures in the 2023 Annual Report on Form 10-K, we recast those prior year MD&A disclosures herein. Global Security Environment The U.S. and its allies continue to face a global security environment of heightened tensions and instability, threats from state and non-state actors, including in particular major global powers, as well as terrorist organizations, increasing nuclear tensions, diverse regional security concerns and political instability. The market for defense products, services and solutions globally is driven by these complex and evolving security challenges, considered in the broader context of political and socioeconomic circumstances and priorities. Our operations and financial performance, as well as demand for our products and services, are impacted by these events, including global unrest. The same is true for our suppliers and other business partners. The conflicts in Ukraine and the Middle East and threats elsewhere, particularly in the Pacific region, have increased global tensions and instability and highlighted security requirements globally, including in Europe, the Middle East and the Pacific region, as well as the U.S. These conflicts have resulted in and may continue to result in increased demand for defense products and services from allies and partner nations, particularly in those areas. For example, we have experienced an increase in demand for certain of our products and services directly and indirectly related to the conflict in Ukraine. We continue to monitor developments in these regions, but have not experienced, and do not anticipate experiencing, significant adverse financial impacts directly from the conflicts in Ukraine or the Middle East. We believe the current global security environment highlights the significant national security threats to the U.S. and its allies, and the need for strong deterrence and robust defense capabilities, and are actively evaluating both opportunities and risks associated with this environment. We believe our capabilities, particularly in space, C4ISR, missile defense, battle management, advanced weapons, strategic deterrence, and survivable aircraft and mission systems should help our customers in the U.S. and globally defend against current and future threats and, as a result, continue to allow for long-term profitable business growth. Global Economic Environment Over the past several years, the global economic environment has experienced extraordinary challenges, including inflationary pressures; widespread delays and disruptions in supply chains; business slowdowns or shutdowns; workforce challenges and labor shortfalls; and market volatility. These macroeconomic factors have contributed, and in the future could contribute, to increased costs, delays, disruptions and other performance challenges, as well as increased competing demands for limited resources to address such increased costs and other challenges, for our company, our suppliers and partners, and our customers. We continue to work to address challenges caused by the macroeconomic environment on our business. We have seen positive progress in the supply chain as on-time deliveries and quality have improved. In remaining areas of pressure, we are proactively working with our suppliers to ensure we meet our contract commitments. Although certain pockets of our business were adversely affected by the broader macroeconomic environment during the fourth quarter of 2024, the overall financial impact on our company has continued to subside. In addition, an overall increase in interest rates in recent years has raised the cost of borrowing for governments, and if rates further increase, it could impact government spending priorities (in the U.S. and allied countries, in particular), including their demand for defense products. Economic tensions and changes in international trade policies, including higher tariffs on imported goods and materials, the imposition of retaliatory tariffs or other trade protection measures and renegotiation of free trade agreements, could also further impact the global market for defense products, services and solutions. U.S. Political, Budget and Regulatory Environment The U.S. continues to face an uncertain and evolving political, budget and regulatory environment. In particular, it is difficult to predict the specific course of future defense budgets. Current and future requirements related to the conflicts in Ukraine and the Middle East, threats in the Pacific region and other security priorities, as well as the macroeconomic environment, the national debt, and other domestic priorities, among other things, in the U.S. and globally, will continue to impact our customers' budgets, spending and priorities, and our industry. The U.S. political environment may also impact defense budgets and priorities, issues related to the national debt, and -28-NORTHROP GRUMMAN CORPORATION A A A A A A A A A A A A A A A A A A A A A A A A government spending more broadly. We anticipate that issues related to budgetary priorities and defense spending levels, the debt ceiling, and the spending caps imposed by the Fiscal Responsibility Act of 2023 (FRA), particularly with respect to discretionary spending, will continue to be a subject of considerable debate, with a potentially significant impact on our programs and the company. Annual appropriations to fund the federal government for FY 2025 have not yet been enacted. Congress continues to pass short-term continuing resolutions (CR) to fund the federal government. The most recent CR passed in December 2024 extends current funding levels until March 14, 2025. It remains uncertain when the government will approve FY 2025 appropriations, and the levels of funding FY 2025 appropriations will provide. Government operations under an extended CR could have potential impacts on our programs and new starts, in particular. The political environment, federal budget, debt ceiling and regulatory environment, including potential tax reform, are expected to continue to be the subject of considerable debate, especially in light of the ongoing conflicts and heightened global tensions, the macroeconomic environment and political tensions. The results of those debates could have material impacts on defense spending broadly and the company's programs in particular. B-21 Program In 2015, the U.S. Air Force awarded Northrop Grumman the B-21 contract, which includes a base contract for engineering and manufacturing development (EMD) and five low-rate initial production (LRIP) options for a baseline total of 21 aircraft. The EMD phase of the program is largely cost type and began at contract award. The LRIP options are largely fixed price and are expected to continue to be awarded and executed through approximately the end of the decade. In addition to the five LRIP options, Northrop Grumman and the U.S. Air Force have established not to exceed (NTE) pricing for additional aircraft up to unit 40. The average NTE value for these subsequent lots is above the average unit price of the five LRIP lots, and the NTE lots include an economic price adjustment clause to help protect against certain inflationary pressures. Final terms, quantity, and pricing for these subsequent lots are not fully negotiated. During the fourth quarter of 2023, we recognized a projected loss of \$1.56A billion across the five LRIP options. During the fourth quarter of 2024, we again reviewed our estimated profitability on the program and made no significant changes to the previously recognized loss. The company's 2024 results reflect our current best estimate of our cost to complete the LRIP and NTE aircraft, as well as the outcome of ongoing discussions with our suppliers and our customer. If our estimated cost to complete the aircraft changes or our assumptions regarding contract performance, quantities, supplier negotiations, or funding to mitigate the impact of macroeconomic disruptions are resolved more or less favorably than what we have estimated, our financial position, results of operations and/or cash flows could be materially affected. Sentinel Program In 2020, the U.S. Air Force awarded Northrop Grumman a \$13.3A billion contract for the EMD phase of the Sentinel program. In January 2024, the U.S. Air Force provided congressional notification that the Sentinel program was under a Nunn-McCurdy breach review, which is required when total program cost estimates exceed certain defined thresholds. This notification, which had been driven primarily by increases in cost estimates for the Production and Deployment phases, commenced the process to achieve certification for continuance of the program and update its baseline cost estimates. We are currently executing under a cost-type contract for the EMD phase, and the Production and Deployment phases are yet to be priced and negotiated. In July 2024, the Sentinel program was certified for continuation by the DoD upon completion of the Nunn-McCurdy breach review. In connection with the certification, the DoD directed that the program be restructured, including plans for infrastructure related to the command and launch segment, which was the main driver of the increased cost estimates for the Production and Deployment phases. We are partnering with our customer to establish a new program baseline as part of the restructuring activities. During the fourth quarter of 2024, we reviewed our estimated profitability on the Sentinel program and made no significant changes. The Sentinel EAC incorporates our best estimate of costs to complete the restructured EMD effort; however, if the outcome is more or less favorable than what we have estimated, our financial position, results of operations and/or cash flows could be materially affected. Operating Performance Assessment and Reporting We manage and assess our business based on our performance on contracts and programs (typically larger contracts or two or more closely-related contracts). We recognize sales from our portfolio of long-term contracts as control is transferred to the customer, primarily over time on a cost-to-cost basis (cost incurred relative to costs estimated at completion). As a result, sales tend to fluctuate in concert with costs incurred across our large portfolio of contracts. -29-NORTHROP GRUMMAN CORPORATION A A A A A A A A A A A A A A A A A A A A A A A A Due to the applicable FAR and CAS requirements that govern our U.S. government business, most types of costs are allocable to U.S. government contracts. As such, we do not focus on individual cost groupings (such as manufacturing, engineering and design labor, subcontractor, material, overhead and general and administrative (G&A) costs), as much as we do on total contract cost, which is the key driver of our sales and operating income. In evaluating our operating performance, we primarily focus on changes in sales and operating margin rates. Where applicable, significant fluctuations in operating performance attributable to individual contracts or programs, or changes in a specific cost element across multiple contracts, are described in our analysis. Based on this approach and the nature of our operations, the discussion of results of operations below first focuses on our four segments before distinguishing between products and services. Changes in sales are generally described in terms of volume, while changes in operating margin rates are generally described in terms of performance and/or contract mix. For purposes of this discussion, volume generally refers to increases or decreases in sales or cost from production/service activity levels and performance generally refers to non-volume-related changes in profitability, which are typically described in terms of changes in net EAC adjustments. Contract mix generally refers to changes in the ratio of contract type and/or life cycle (e.g., cost-type, fixed-price, development, production, and/or sustainment). CONSOLIDATED OPERATING RESULTS For purposes of the operating results discussion below, we assess our performance using certain financial measures that are not calculated in accordance with accounting principles generally accepted in the United States of America (GAAP) or FAS. Mark-to-market adjusted net earnings (MTM-adjusted net earnings) and MTM-adjusted earnings per share (MTM-adjusted EPS) exclude MTM pension and OPB benefit (expense) and related tax impacts, which are generally only recognized during the fourth quarter. These non-GAAP measures may be useful to investors and other users of our financial statements as supplemental measures in evaluating the company's underlying financial performance by presenting the company's operating results before the non-operational impact of pension and OPB actuarial gains and losses. These measures are also consistent with how management views the underlying performance of the business as the impact of MTM accounting is not considered in management's assessment of the company's operating performance or in its determination of incentive compensation awards. We reconcile these non-GAAP financial measures to their most directly comparable GAAP financial measures below. These non-GAAP measures may not be defined and calculated by other companies in the same manner and should not be considered in isolation or as an alternative to operating results presented in accordance with GAAP. Selected financial highlights are presented in the table below: Year Ended December 31 Change in \$ in millions, except per share amounts 2024/2023 2023/2022 2022/2021 2021/2020 Sales \$41,033A \$39,290A \$36,602A 4A % 7A % Operating costs and expenses 36,663A 36,753A 33,001A 6A % 11A % Operating costs and expenses as a % of sales 89.4A % 93.5A % 90.2A % Operating income 4,370A 2,537A 3,601A 72A % (30)% Operating margin rate 10.6A % 6.5A % 9.8A % Mark-to-market pension and OPB benefit (expense) 443A (422)A 1,232A NMNMFederal and foreign income tax expense 842A 290A 940A 190A % (69)% Effective income tax rate 16.8A % 12.4A % 16.1A % Net earnings 4,174A 2,056A 4,896A 103A % (58)% Diluted earnings per share \$28.34A \$13.53A \$31.47A 109A % (57)% Sales 2024 sales increased \$1.7A billion, or 4 percent, due to a 12 percent growth in sales at Aeronautics Systems and higher sales at Mission Systems and Defense Systems, partially offset by lower sales at Space Systems largely driven by a reduction of \$595A million associated with wind-down of work on the restricted space and NGI programs, as previously disclosed. 2024 sales reflect continued strong demand for our products and services. -30-NORTHROP GRUMMAN CORPORATION A A A A A A A A A A A A A A A A A A A A A A A A See Segment Operating Results below for further information by segment and Product and Service Analysis for product and service detail. See Note 15 to the consolidated financial statements for information regarding the company's sales by customer type, contract type and geographic region for each of our segments. Operating Income and Margin Rate 2024 operating income increased \$1.8A billion, or 72 percent, primarily due to higher operating income at Aeronautics Systems, largely driven by the prior year \$1.56 billion charge on the B-21 program, as well as higher operating income at Space Systems and Defense Systems. 2024 operating income also increased due to a \$122 million increase in the FAS/CAS operating adjustment, partially offset by \$73 million of higher unallocated corporate expense, largely due to a \$127 million increase in deferred state taxes related to the MTM benefit (expense) and prior year B-21 charge and \$25 million of lower intangible amortization and PP&E step-up depreciation. 2024 operating margin rate increased to 10.6 percent from 6.5 percent reflecting the items above. 2024 G&A costs as a percentage of sales decreased to 9.7 percent from 10.2 percent primarily

due to higher sales. For further information regarding product and service operating costs and expenses, see [a6Product and Service Analysis](#) below.

**Mark-to-Market Pension and OPB Benefit/Expense**The primary components of pre-tax MTM benefit (expense) are presented in the table below: **Year Ended December** **2024** **2023** **2022** **2021** **2020** **2019** **2018** **2017** **2016** **2015** **2014** **2013** **2012** **2011** **2010** **2009** **2008** **2007** **2006** **2005** **2004** **2003** **2002** **2001** **2000** **1999** **1998** **1997** **1996** **1995** **1994** **1993** **1992** **1991** **1990** **1989** **1988** **1987** **1986** **1985** **1984** **1983** **1982** **1981** **1980** **1979** **1978** **1977** **1976** **1975** **1974** **1973** **1972** **1971** **1970** **1969** **1968** **1967** **1966** **1965** **1964** **1963** **1962** **1961** **1960** **1959** **1958** **1957** **1956** **1955** **1954** **1953** **1952** **1951** **1950** **1949** **1948** **1947** **1946** **1945** **1944** **1943** **1942** **1941** **1940** **1939** **1938** **1937** **1936** **1935** **1934** **1933** **1932** **1931** **1930** **1929** **1928** **1927** **1926** **1925** **1924** **1923** **1922** **1921** **1920** **1919** **1918** **1917** **1916** **1915** **1914** **1913** **1912** **1911** **1910** **1909** **1908** **1907** **1906** **1905** **1904** **1903** **1902** **1901** **1900** **1899** **1898** **1897** **1896** **1895** **1894** **1893** **1892** **1891** **1890** **1889** **1888** **1887** **1886** **1885** **1884** **1883** **1882** **1881** **1880** **1879** **1878** **1877** **1876** **1875** **1874** **1873** **1872** **1871** **1870** **1869** **1868** **1867** **1866** **1865** **1864** **1863** **1862** **1861** **1860** **1859** **1858** **1857** **1856** **1855** **1854** **1853** **1852** **1851** **1850** **1849** **1848** **1847** **1846** **1845** **1844** **1843** **1842** **1841** **1840** **1839** **1838** **1837** **1836** **1835** **1834** **1833** **1832** **1831** **1830** **1829** **1828** **1827** **1826** **1825** **1824** **1823** **1822** **1821** **1820** **1819** **1818** **1817** **1816** **1815** **1814** **1813** **1812** **1811** **1810** **1809** **1808** **1807** **1806** **1805** **1804** **1803** **1802** **1801** **1800** **1799** **1798** **1797** **1796** **1795** **1794** **1793** **1792** **1791** **1790** **1789** **1788** **1787** **1786** **1785** **1784** **1783** **1782** **1781** **1780** **1779** **1778** **1777** **1776** **1775** **1774** **1773** **1772** **1771** **1770** **1769** **1768** **1767** **1766** **1765** **1764** **1763** **1762** **1761** **1760** **1759** **1758** **1757** **1756** **1755** **1754** **1753** **1752** **1751** **1750** **1749** **1748** **1747** **1746** **1745** **1744** **1743** **1742** **1741** **1740** **1739** **1738** **1737** **1736** **1735** **1734** **1733** **1732** **1731** **1730** **1729** **1728** **1727** **1726** **1725** **1724** **1723** **1722** **1721** **1720** **1719** **1718** **1717** **1716** **1715** **1714** **1713** **1712** **1711** **1710** **1709** **1708** **1707** **1706** **1705** **1704** **1703** **1702** **1701** **1700** **1699** **1698** **1697** **1696** **1695** **1694** **1693** **1692** **1691** **1690** **1689** **1688** **1687** **1686** **1685** **1684** **1683** **1682** **1681** **1680** **1679** **1678** **1677** **1676** **1675** **1674** **1673** **1672** **1671** **1670** **1669** **1668** **1667** **1666** **1665** **1664** **1663** **1662** **1661** **1660** **1659** **1658** **1657** **1656** **1655** **1654** **1653** **1652** **1651** **1650** **1649** **1648** **1647** **1646** **1645** **1644** **1643** **1642** **1641** **1640** **1639** **1638** **1637** **1636** **1635** **1634** **1633** **1632** **1631** **1630** **1629** **1628** **1627** **1626** **1625** **1624** **1**

restricted programs and F-35 sustinment at Mission Systems.2024 service costs were comparable to the prior year, consistent with the change in services sales described above.2023 service costs increased \$186 million, or 3 percent, consistent with the higher service sales described above and reflects a higher operating margin rate on Space Systems service programs.BACKLOGBacklog represents the future sales we expect to recognize on firm orders received by the company and is equivalent to the company's remaining performance obligations at the end of each period. It comprises both funded backlog (firm orders for which funding is authorized and appropriated) and unfunded backlog. Unexercised contract options and indefinite delivery indefinite quantity (IDIQ) contracts are not included in backlog until the time the option or IDIQ task order is exercised or awarded. Backlog is converted into sales as costs are incurred or deliveries are made.Backlog consisted of the following at December 31, 2024 and 2023:Â 20242023\$ in millionsFundedUnfundedTotalBacklogTotalBacklog% Change in 2024Aeronautics Systems\$10,689Â \$13,409Â \$24,098Â \$19,583Â 23Â %Defense Systems9,873Â 17,845Â 27,718Â 20,198Â 37Â %Mission Systems1,574Â 4,869Â 16,443Â 16,108Â 2Â %Space Systems7,526Â 15,683Â 23,209Â 28,341Â (18)%Total backlogs\$39,662Â \$51,806Â \$91,468Â \$84,230Â 9Â %2024 net awards totaled \$50.6 billion. Significant 2024 new awards include \$11.8 billion for restricted programs (primarily at Aeronautics Systems, Mission Systems, and Space Systems), \$3.5 billion for the Take Charge and Move Out (TACAMO) mission, \$3.5 billion for F-35 (primarily at Aeronautics Systems), \$2.4 billion for E-2, \$1.8 billion for Next-Gen OPIR Polar, \$0.9 billion for Poland IBCS, and \$0.8 billion for certain military ammunition programs. During 2024, the company reduced unfunded backlog by \$1.6Â billion and \$0.7Â billion related to terminations for convenience in our restricted space business and on the NGL program at Space Systems, respectively.LIQUIDITY AND CAPITAL RESOURCESWe are focused on the efficient conversion of operating income into cash to provide for the company's material cash requirements, including working capital needs, satisfaction of contractual commitments, funding of our pension and OPB plans, investment in our business through capital expenditures, and shareholder return through dividend payments and share repurchases. As of December 31, 2024, we had cash and cash equivalents of \$4.4 billion; \$268Â million was held outside of the U.S. by foreign subsidiaries. We expect cash and cash equivalents and cash generated from operating activities, supplemented by borrowings under credit facilities, commercial paper and/or in the capital markets through our shelf registration with the SEC, if needed, to be sufficient to provide liquidity to the company in the short-term and long-term. The company has a five-year senior unsecured credit facility in an aggregate principal amount of \$2.5 billion, and in April 2024, we renewed our one-year \$500Â million uncommitted credit facility. At December 31, 2024, there were no borrowings outstanding under these credit facilities. In January 2024, we issued \$2.5 billion of unsecured senior notes for general corporate purposes, including debt repayment, share repurchases and working capital.The company's principal contractual commitments include purchase obligations, repayments of long-term debt and related interest, and payments under operating leases. At December 31, 2024, we had \$20.5Â billion of purchase obligations, approximately half of which is short-term. Purchase obligations are largely comprised of open purchase orders from suppliers and subcontractors under U.S. government contracts. In most circumstances, our risk associated with the purchase obligations on our U.S. government contracts is limited to the termination liability provisions within those contracts. As such, we do not believe they represent a material liquidity risk to the company. At December 31, 2024, we had capital expenditure commitments of \$1.5Â billion, which we expect to satisfy with cash on hand. We also had provisions for uncertain tax positions of \$1.4Â billion, some or all of which could result in future cash payments to various taxing authorities. At this time, we are unable to estimate the timing and amount of any future cash outflows related to these uncertain tax positions. Refer to the respective notes to the consolidated financial statements for further information about our share repurchase programs (Note 2), commercial paper, credit facilities and long-term debt (Note 9), standby letters of credit and guarantees (Note 11), future minimum contributions for the company's pension and OPB plans (Note 12), and lease payment obligations (Note 14). Income Tax MattersDuring the fourth quarter of 2024, the company entered into an agreed Revenue Agent's Report (RAR) for certain matters related to the company's 2018-2020 federal income tax returns, largely related to our methods of accounting associated with the timing of revenue recognition and related costs under IRC Section 451(b). The company made a \$956 million payment in December 2024, inclusive of associated interest, in connection with the agreed RAR. Refer to Note 6 to the financial statements for further information about our unrecognized tax benefits.Beginning in 2022, the Tax Cuts and Jobs Act of 2017 (TCJA) eliminated the option to deduct research and development expenditures in the current year and requires taxpayers to amortize them over five years pursuant to IRC Section 174. Our 2024 and 2023 cash from operations were reduced for federal estimated tax payments we made related to Section 174 of approximately \$350 million and \$500 million, respectively. In the future, Congress may consider legislation that would defer the amortization requirement to later years, possibly with retroactive effect. In the meantime, we expect to continue to make additional federal tax payments based on the current Section 174 tax law, which we estimate will reduce our 2025 cash from operations by approximately \$230 million. The impact of Section 174 on our cash from operations depends on the amount of research and development expenditures incurred by the company and whether the IRS issues guidance on the provision which differs from our current interpretation, among other things.Cash Flow MeasuresIn addition to our cash position, we consider various cash flow measures in capital deployment decision-making, including cash provided by operating activities and adjusted free cash flow, a non-GAAP measure described in more detail below.Operating Cash FlowThe table below summarizes key components of cash provided by operating activities:Â Year Ended December 31\$ in millions202420232022Net earnings\$4,174Â \$2,056Â \$4,896Â B-21 charge\$1,559Â \$1,559Â A Non-cash items(1)8Â 551Â 1(305)Pension and OPB contributions(129)(139)(136)Changes in trade working capital274Â (144)(600)Other, net61Â (8)(46)Net cash provided by operating activities\$4,388Â \$3,875Â \$2,901Â (1)Includes depreciation and amortization, non-cash lease expense, MTM benefit (expense), stock based compensation expense, deferred income taxes and net periodic pension and OPB income.2024 cash provided by operating activities increased \$513 million, or 13 percent, principally due to improved trade working capital, largely driven by lower net tax payments, as well as higher net earnings.Adjusted Free Cash FlowAdjusted free cash flow, as reconciled in the table below, is a non-GAAP measure defined as net cash provided by or used in operating activities, less capital expenditures, plus proceeds from the sale of equipment to a customer (not otherwise included in net cash provided by or used in operating activities) and the after-tax impact of discretionary pension contributions, if any. Adjusted free cash flow includes proceeds from the sale of equipment to a customer as -39-NORTHROP GRUMMAN CORPORATION's such proceeds were generated in a customer sales transaction. It also includes the after-tax impact of discretionary pension contributions for consistency and comparability of financial performance. This measure may not be defined and calculated by other companies in the same manner. We use adjusted free cash flow as a key factor in our planning for, and consideration of, acquisitions, the payment of dividends and stock repurchases. This non-GAAP measure may be useful to investors and other users of our financial statements as a supplemental measure of our cash performance, but should not be considered in isolation, as a measure of residual cash flow available for discretionary purposes, or as an alternative to operating cash flows presented in accordance with GAAP.The table below reconciles net cash provided by operating activities to adjusted free cash flow:Â Year Ended December 31\$ in millions202420232022Net cash provided by operating activities\$4,388Â \$3,875Â \$2,901Â 13Â %34Â %Capital expenditures(1,767)(1,775)(1,435)A 24Â %Proceeds from sale of equipment to a customer\$1,559Â NM(100)%Adjusted free cash flow\$2,621Â \$2,100Â \$1,621Â 25Â %30Â %2024 adjusted free cash flow increased \$521 million, or 25 percent, principally due to higher net cash provided by operating activities.Investing Cash Flow2024 net cash used in investing activities increased \$167 million principally due to the receipt of proceeds from the sale of minority investments in the prior year.Financing Cash Flow2024 net cash used in financing activities decreased \$366 million primarily due to \$1.05 billion of lower debt repayments and a \$500 million increase in proceeds from long-term debt, partially offset by a \$1.0 billion increase in share repurchases and a \$70 million increase in dividends paid. Cash returned to shareholders through share repurchases and dividends totaled \$3.7 billion in 2024 and \$2.6 billion in 2023.CRITICAL ACCOUNTING POLICIES AND ESTIMATESOur consolidated financial statements are prepared in conformity with GAAP, which requires us to make estimates and assumptions about future events that affect the amounts reported in our consolidated financial statements. We employ judgment in making our estimates in consideration of historical experience, currently available information and various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ from our estimates and assumptions, and any such differences could be material to our consolidated financial statements. We believe the following accounting policies are critical to the understanding of our consolidated financial statements and require the use of significant management judgment in their application. For a summary of our significant accounting policies, see Note 1 to the consolidated financial statements.Revenue RecognitionDue to the long-term nature of our contracts, we generally recognize revenue over time using the cost-to-cost method, which requires us to make reasonably dependable estimates regarding the revenue and cost associated with the design, manufacture and delivery of our products and services.Contract sales may include estimates of variable consideration, including cost or performance incentives (such as award and incentive fees), un-priced change orders, REAs and contract claims. Variable consideration is included in total estimated sales to the extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. We estimate variable consideration as the most likely amount to which we expect to be entitled.Our cost estimation process is based on the professional knowledge of our engineering, program management and financial professionals, and draws on their significant experience and judgment. We prepare EACs for our contracts and calculate an estimated contract profit based on total estimated contract sales and cost. Since our contracts often span a period of several years, estimation of revenue, cost, and progress toward completion requires the use of judgment. Factors considered in these estimates include our historical performance, the availability, productivity and cost of labor, the nature and complexity of work to be performed, the effect of change orders, availability and cost of materials, components and subcontracts, the effect of any delays in performance and the level of indirect cost allocations. -40-NORTHROP GRUMMAN CORPORATION's We also consider the impact of macroeconomic factors on our estimates, in particular on contract EACs that span several years. For example, we have included in our EACs management's best estimate of the impact inflation and disruptions in the supply chain have had and may continue to have on our contracts. Although the overall financial impact these macroeconomic factors have had on our company has largely subsided, volatility of the recent macroeconomic environment has added complexity to our estimation process and may result in our contract EACs having more variability in the future than they might otherwise have had if the estimates had been prepared in a more stable macroeconomic environment. We generally review and reassess our sales, cost and profit estimates for each significant contract at least annually or more frequently as determined by the occurrence of events, changes in circumstances and evaluations of contract performance to reflect the latest reliable information available. These assessments require judgments and estimates that can be affected by any number of these factors over time, which may cause actual results to differ materially from those estimates as facts and circumstances change or become known to us.The company performs on a broad portfolio of long-term contracts, including the development of complex and customized military platforms and systems, as well as advanced electronic equipment and software, that often include technology at the forefront of science. Cost estimates on fixed-price development contracts and early-stage/low-rate production contracts are inherently more uncertain as to future events than on mature, full-rate production contracts. As a result, there is typically more variability in those estimates and greater financial risk associated with unanticipated cost growth on fixed-price development contracts and early-stage/low-rate production contracts. Changes in estimates occur for a variety of reasons, including changes in contract scope, the resolution of risk at lower or higher cost than anticipated, unanticipated performance and other risks affecting contract costs, performance issues with subcontractors or suppliers, changes in indirect cost allocations, such as overhead and G&A costs, and changes in estimated award and incentive fees. Identified risks typically include technical, schedule and/or performance risk based on our evaluation of the contract effort. Similarly, the changes in estimates may include changes in, or resolution of, identified opportunities for operating margin improvement.For the impacts of changes in estimates on our consolidated statements of earnings and comprehensive income, see Segment Operating Results and Note 1 to the consolidated financial statements.Retirement BenefitsOverview The determination of projected benefit obligations, the fair value of plan assets, and pension and OPB expense for our retirement benefit plans requires the use of estimates and actuarial assumptions. We perform an annual review of our actuarial assumptions in consultation with our actuaries. When we determine changes in the assumptions are warranted, or as a result of plan amendments, future pension and OPB expense and our projected benefit obligation could increase or decrease materially. The principal estimates and assumptions that have a significant effect on our consolidated financial position and results of operations are the discount rate, cash balance crediting rate, expected long-term rate of return on plan assets, estimated fair market value of plan assets, and the mortality rate of those covered by our pension and OPB plans. The effects of actual results differing from our assumptions and the effects of changing assumptions (i.e., actuarial gains or losses) are recognized immediately through earnings upon annual remeasurement in the fourth quarter, or on an interim basis as triggering events warrant remeasurement. Discount Rate The discount rate represents the interest rate used to determine the present value of future cash flows currently expected to be required to settle our pension and OPB obligations. The discount rate is generally based on the yield of high-quality corporate fixed-income investments. At the end of each year, we determine the discount rate using a theoretical bond portfolio model of bonds rated AA or better to match the notional cash outflows related to projected benefit payments for each of our significant benefit plans. Taking into consideration the factors noted above, our weighted-average composite pension discount rate was 5.73 percent at December 31, 2024 and 5.15 percent at December 31, 2023.-41-NORTHROP GRUMMAN CORPORATION's The effects of a hypothetical change in the discount rate may be nonlinear and asymmetrical for future years as the discount rate changes. Holding all other assumptions constant, an increase or decrease of 25 basis points in the December 31, 2024 discount rate assumption would have the following estimated effects on 2024 pension and OPB obligations, which would be reflected in the 2024 MTM expense (benefit), and 2025 expected pension and OPB expense:\$ in millions25 Basis Point Decrease in Rate25 Basis Point Increase in Rate2024 pension and OPB obligation and MTM expense (benefit)\$785Â \$(750)2025 pension and OPB (benefit) expense(20)19Â Cash Balance Crediting Rate A portion of the company's pension obligation and resulting pension expense is based on a cash balance formula, where participants' hypothetical account balances are accumulated over time with pay-based credits and interest.Â Interest is credited monthly using the current 30-Year Treasury bond rate.Â The interest crediting rate is part of the cash balance formula and independent of actual pension investment returns.Â The cash balance crediting rate tends to move in concert with the discount rate but has an offsetting effect on pension benefit obligations and the related MTM expense (benefit). The minimum cash balance crediting rate allowed under the plan is 2.25 percent. The cash balance crediting rate assumption has been set to its current level of 4.78 percent as of December 31, 2024, increasing to 4.90 percent by 2030.Â Holding all other assumptions constant, an increase or decrease of 25 basis points in the December 31, 2024 cash balance crediting rate assumption would have the following estimated effects on the 2024 pension benefit obligation, which would be reflected in the 2024 MTM (benefit) expense, and 2025 expected pension expense:\$ in millions25 Basis Point Decrease in Rate25 Basis Point Increase in Rate2024 pension obligation and MTM (benefit) expense(101)\$104Â 2025 pension (benefit) expense(9)9Â Expected Long-Term Rate of Return on Plan Assets The expected long-term rate of return on plan assets (EROA) assumption reflects the average rate of net earnings we expect on current and future benefit plan investments. EROA is a long-term assumption, which we review annually and adjust to reflect changes in our long-term view of expected market returns and/or significant changes in our plan asset investment policy. Due to the inherent uncertainty of this assumption, we consider multiple data points at the measurement date including the plan's target asset allocation, historical plan asset returns and third-party projection models of expected long-term returns for each of the plan's strategic asset classes. In addition to the data points themselves, we consider trends in the data points, including changes from the prior measurement date. The EROA assumptions we use for pension benefits are consistent with those used for OPB plans; however, we reduce the EROA for OPB plans to allow for the impact of tax on investment earnings, as certain Voluntary Employee Beneficiary Association trusts are taxable. During 2024, the Investment Committee of the company's benefit plans reviewed the plan's major asset class allocations and approved an update to increase the target fixed-income asset allocation from 43% to 45%. The actual asset allocation as of December 31, 2024 was approximately 41% fixed-income, 29% public equities, 23% alternatives, 6% private credit and 1% cash. At this time, the Investment Committee is not planning any significant changes to that mix. For further information on plan asset investments, see Note 12 to the consolidated financial statements.While historical market returns are not necessarily predictive of future market returns, given our long history of plan performance supported by the stability in our investment mix, investment managers, and active asset management, we believe our actual historical performance is a reasonable metric to consider when developing our EROA. Our average annual rate of return from 1976 to 2024 was approximately 10.5 percent and our 20-year and 30-year rolling average rates of return were approximately 7.5 percent and 8.9 percent, respectively, each determined on an arithmetic basis and net of expenses. Our 2024 return on plan assets, net of expenses, was approximately 4.7 percent.Consistent with our past practice, we obtained long-term capital market forecasting models from several third parties and, using our target asset allocation, developed an expected rate of return on plan assets from each model. We -42-NORTHROP GRUMMAN

CORPORATION AAAAAAAAAAAAAAAAAAAAAA considered only the specific returns projected by those third-party models, but also changes in the models year-to-year when developing our EROA. For determining 2024 FAS expense, we assumed an expected long-term rate of return on pension plan assets of 7.5 percent and an expected long-term rate of return on OPB plan assets of 7.12 percent. For 2025 FAS expense, we have assumed an expected long-term rate of return on pension plan assets of 7.5 percent and 7.08 percent on OPB plans. Holding all other assumptions constant, an increase or decrease of 25 basis points in our December 31, 2024 EROA assumption would have the following estimated effects on 2025 expected pension and OPB expense: \$ in millions

| Basis Point Change | Pension Expense (\$ millions) | OPB Expense (\$ millions) |
|--------------------|-------------------------------|---------------------------|
| +25                | \$300.4                       | \$296.4                   |
| -25                | \$299.6                       | \$295.6                   |

In addition, holding all other assumptions constant, an increase or decrease of 100 basis points in actual versus expected return on plan assets would have the following estimated effects on our 2025 MTM expense (benefit): \$ in millions

| Basis Point Change | MTM Expense/Benefit (\$ millions) |
|--------------------|-----------------------------------|
| +100               | \$100.0                           |
| -100               | \$(100.0)                         |

Decrease 100 Basis Point Increase 2025 MTM expense (benefit) \$300.4 \$(300.0) Estimated Fair Market Value of Plan Assets \$6.7 For certain plan assets where the fair market value is not readily determinable, such as real estate, private equity, hedge funds and opportunistic investments, we develop estimates of fair value using the best information available. Estimated fair values on these plan assets are based on redemption values and net asset values (NAV), as well as valuation methodologies that include third-party appraisals, comparable transactions, discounted cash flow valuation models and public market data.

Mortality Rate We use mortality assumptions to estimate life expectancies of plan participants. In October 2014, the Society of Actuaries Retirement Plans Experience Committee (RPEC) issued updated mortality tables and a mortality improvement scale, which reflected longer life expectancies than previously projected. In October 2019, the RPEC issued an updated mortality base table (the Private Retirement Plans Mortality table for 2012 (Pri-2012)), which we adopted after reviewing our own historical mortality experience. In October 2021, the RPEC released a new projection scale (MP-2021) that included additional underlying data for 2019, which included an increase in life expectancies relative to the prior year. The RPEC has not released a projection scale since MP-2021, citing complexities in incorporating the substantial number of excess deaths in 2020 and 2021 into their existing model and uncertainties about future expectations primarily related to COVID-19. As such, after considering the information released by the RPEC in October 2021 as well as the company's recent mortality experience, we adopted the full MP-2021 projection scale while continuing to use the Pri-2012 White Collar table, supplemented with 50% of the Gradual Wear-Off illustration as outlined in the RPEC's 2022 Mortality Improvement Update paper to reflect the future impacts of COVID-19, to develop our mortality assumptions used in calculating our pension and OPB obligations recognized at December 31, 2024, and the amounts estimated for our 2025 pension and OPB expense. For further information regarding our pension and OPB plans, see Risk Factors and Notes 1 and 12 to the consolidated financial statements.

Litigation, Commitments and Contingencies We are subject to a range of claims, disputes, enforcement actions, investigations, lawsuits, overhead cost claims, environmental matters, income tax matters and administrative proceedings that arise in the ordinary course of business. Estimating liabilities and costs associated with these matters requires judgment based upon the professional knowledge and experience of management. We determine whether to record a reserve and, if so, what amount based on consideration of the facts and circumstances of each matter as then known to us. Determinations regarding whether to record a reserve and, if so, of what amount, reflect management's assessment regarding what is likely to occur; they do not necessarily reflect what management believes should occur. The ultimate resolution of any such exposure to us may vary materially from earlier estimates as further facts and circumstances develop or become known to us.

Environmental Matters We are subject to environmental laws and regulations in the jurisdictions in which we do or have done business. Factors that could result in changes to the assessment of probability, range of reasonably estimated costs and environmental accruals include: modification of planned remedial actions; changes in the estimated time required to conduct remedial actions; discovery of more or less extensive (or different) contamination; Northrop Grumman Corporation's operations and/or cash flows. Income Tax Matters The evaluation of tax positions taken in a filed tax return, or planned to be taken in a future tax return or claim, requires the use of judgment. We establish reserves for uncertain tax positions when, despite the belief that our tax positions are supportable, there remains uncertainty in a tax position taken in our filed tax returns or planned to be taken in a future tax return or claim. The company follows a recognition and measurement approach, considering the facts, circumstances, and information available at the reporting date. We exercise judgment in determining the level of evidence necessary and appropriate to support our assessment using all available information. The technical merits of a given tax position are derived from sources of authority in the tax law and their applicability to the facts and circumstances of the position. In measuring the tax position, the company considers the amounts and probabilities of the outcomes that could be realized upon settlement. When it is more likely than not that a tax position will be sustained, we record the largest amount of tax benefit with a greater than 50 percent likelihood of being realized upon ultimate settlement with a taxing authority. As of December 31, 2024, we have approximately \$1.4 billion in unrecognized tax benefits. To the extent we prevail in matters for which reserves have been established or are required to pay amounts in excess of reserves, there could be a significant impact on our consolidated financial position, annual results of operations and/or cash flows. For further information on litigation, commitments and contingencies, see Risk Factors and Note 1, Note 6, Note 10 and Note 11 to the consolidated financial statements.

Goodwill and Long-Lived Assets Overview We allocate the purchase price of acquired businesses to the underlying tangible and intangible assets acquired and liabilities assumed based upon their respective fair values, with the excess recorded as goodwill. Such fair value assessments require judgments and estimates that can be affected by contract performance and other factors over time, which may cause final amounts to differ materially from original estimates. Adjustments to the fair value of purchased assets and liabilities after the initial measurement period are recognized in net earnings. We record property, plant and equipment (PP&E) for capital assets used in operating our business. The cost of PP&E utilized in support of our government contracts is generally allowable and allocable cost in accordance with applicable FAR and CAS requirements, which limits our risk of impairment on those assets. However, the cost of PP&E utilized in support of our commercial business, including approximately \$575 million of PP&E used in our commercial space business, is not allocable to government contracts and is therefore subject to greater recoverability risk.

Impairment Testing We test for impairment of goodwill annually at each of our reporting units, which comprise our operating segments. The results of our annual goodwill impairment tests as of December 31, 2024 and 2023, respectively, indicated that the estimated fair value of each reporting unit significantly exceeded its respective carrying value. There were no impairment charges recorded in the years ended December 31, 2024, 2023 and 2022. In addition to performing an annual goodwill impairment test, we may perform an interim impairment test if events occur or circumstances change that suggest goodwill in any of our reporting units may be impaired. Such indicators may include, but are not limited to, the loss of significant business, significant reductions in federal government appropriations or other significant adverse changes in industry or market conditions. During 2024, we determined there were no impairment indicators requiring us to perform an interim goodwill impairment test. When testing goodwill for impairment, we compare the fair values of each of our reporting units to their respective carrying values. To determine the fair value of our reporting units, we primarily use the income approach based on the cash flows we expect the reporting units to generate in the future, consistent with our operating plans. This income valuation method requires management to project sales, operating expenses, working capital, capital expenditures and cash flows for the reporting units over a multi-year period, as well as to determine the weighted-average cost of capital (WACC) used as a discount rate and terminal value assumptions. The WACC takes into account the relative weights of each component of our consolidated capital structure (equity and debt) and represents the expected cost of new capital adjusted as appropriate to consider lower risk profiles associated with longer-term contracts and barriers to market entry. The terminal value assumptions are applied to the final year of the discounted cash flow model. We use industry multiples (including relevant control premiums) of operating earnings to corroborate the fair values of our reporting units determined under the market valuation method of the income approach. We test for impairment of our long-lived assets when events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. Our assessment is based on our projection of the undiscounted future operating cash flows of the related asset group. If such projections indicate that future undiscounted cash flows are not sufficient to recover the carrying amount, we recognize a non-cash impairment charge to reduce the carrying amount to fair value. There were no impairment charges recorded in the years ended December 31, 2024, 2023 and 2022. Impairment assessment inherently involves management judgments as to assumptions about expected future cash flows and the impact of market conditions on those assumptions. Due to the many variables inherent in developing the estimates used in our impairment analyses, differences in assumptions may have a material effect on the results of those impairment analyses.

NORTHROP GRUMMAN CORPORATION Item 7A. Quantitative and Qualitative Disclosures About Market Risk EQUITY RISK We have been and continue to be exposed to market risk with respect to our portfolio of marketable securities with a fair value of \$347 million at December 31, 2024. These securities are exposed to market volatilities, changes in price and interest rates. INTEREST RATE RISK We are exposed to interest rate risk on variable-rate short-term credit facilities for which there were no borrowings outstanding at December 31, 2024. At December 31, 2024, we have \$16.3 billion of long-term debt, primarily consisting of fixed-rate debt, with a fair value of approximately \$15.3 billion. The terms of our fixed-rate debt obligations do not generally allow investors to demand payment of these obligations prior to maturity. Therefore, we do not have significant exposure to interest rate risk for our fixed-rate debt; however, we do have exposure to fair value risk if we repurchase or exchange long-term debt prior to maturity. Additionally, if we were to refinance our long-term debt, it may be refinanced at higher interest rates. FOREIGN CURRENCY RISK In certain circumstances, we are exposed to foreign currency risk. We enter foreign currency forward contracts to manage a portion of the exchange rate risk related to receipts from customers and payments to suppliers denominated in foreign currencies. We do not hold or issue derivative financial instruments for trading purposes. At December 31, 2024, foreign currency forward contracts with a notional amount of \$399 million were outstanding. At December 31, 2024, a 10 percent unfavorable foreign exchange rate movement would not have a material impact on our consolidated financial position, annual results of operations and/or cash flows. INFLATION RISK The global macroeconomic environment has experienced extraordinary challenges in recent years, including the highest rates of inflation in 40 years. The company, its subcontractors and other suppliers, have experienced, and may in the future experience, pressures from heightened levels of inflation and challenges from the macroeconomic environment. Certain of our fixed-price contracts include economic price adjustment (EPA) clauses to help protect the company against inflationary pressures. However, these EPA clauses may not be able to fully mitigate adverse impacts of rising inflation on the company's financial position, results of operations and/or cash flows.

Item 8. Financial Statements and Supplementary Data REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM To the Board of Directors and Shareholders of Northrop Grumman Corporation Falls Church, Virginia Opinion on the Financial Statements We have audited the accompanying consolidated statements of financial position of Northrop Grumman Corporation and subsidiaries (the Company) as of December 31, 2024 and 2023, the related consolidated statements of earnings and comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2024, and the related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America. We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2024, based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated January 29, 2025 expressed an unqualified opinion on the Company's internal control over financial reporting. Basis for Opinion These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion. Critical Audit Matter The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit and risk committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates. Revenue Recognition - Estimates of Revenue and Cost at Completion for Select Long-Term Contracts - Refer to Note 1 to the financial statements. Critical Audit Matter Description As further described in Note 1 to the financial statements, the Company recognizes revenue as control is transferred to the customer, which for long-term contracts is generally over-time using the cost-to-cost method (cost incurred relative to total cost estimated at completion). Use of the cost-to-cost-method requires the Company to make reasonably dependable estimates regarding the revenue and costs associated with the design, manufacture and delivery of their products or services. The Company estimates profit on these contracts as the difference between total estimated revenue and total estimated costs at completion and recognizes that profit as costs are incurred. We identified this as a critical audit matter because the Company's revenue and cost estimates for long-term contracts are highly subjective and require significant judgment. The complexity of the contracts and the high degree of auditor judgment. How the Critical Audit Matter Was Addressed in the Audit Our audit procedures related to the revenue and cost estimates for these contracts identified included the following, among others:

- We tested the operating effectiveness of controls over the significant assumptions and judgments underlying the estimates of revenues and costs to completion associated with these long-term contracts.
- Based on the risk characteristic identified on an individual contract, we evaluated certain revenue and cost assumptions by reading the underlying contract and any amendments or modifications to understand the contractual requirements and performance obligations.
- Assessing the timing of recognition of any incentive fees or award fees based on contract terms and relevant historical trends.
- Evaluating management's ability to achieve the estimates of remaining revenue and costs by performing inquiries with the Company's program and business management regarding their basis of estimates including work plans, engineering specifications, program labor and suppliers, challenges or opportunities related to the program, actual performance to date compared to plan, and any recent correspondence between the Company and the customer on changes in scope or contractual terms.
- Evaluating selected changes to the estimates of costs to completion and obtaining supporting documentation on the appropriateness of the timing and amounts of these changes in estimates.
- Testing the accuracy and completeness of the information used in developing estimates, as well as the mathematical accuracy of management's calculation of revenue recognized during the period for the performance obligations.

/s/ Deloitte & Touche LLP McLean, Virginia January 29, 2025 We have served as the Company's auditor since 1975.

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income tax penalties are also recognized as a component of income tax expense. In accordance with applicable FAR and CAS requirements, current state and local income taxes are generally considered allowable and allocable costs to our U.S. government contracts and are, therefore, recorded in operating costs and expenses. The company generally recognizes changes in deferred state taxes and unrecognized state tax benefits in unallocated corporate expenses. Uncertain tax positions reflect the company's expected treatment of tax positions taken in a filed tax return, or planned to be taken in a future tax return or claim. Until these positions are sustained by the taxing authorities or the statute of limitations concerning such issues lapses, the company does not generally recognize the tax benefits resulting from such positions and reports the tax effects as a liability for uncertain tax positions in its consolidated statements of financial position.

Cash and Cash Equivalents

Cash and cash equivalents are comprised of cash in banks and highly liquid instruments with original maturities of three months or less, primarily consisting of bank time deposits and investments in institutional money market funds. Cash in bank accounts often exceeds federally insured limits. Fair Value of Financial Instruments

The company measures the fair value of its financial instruments using observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions. These two types of inputs create the following fair value hierarchy:

Level 1 - Quoted prices for identical instruments in active markets.

Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 - Significant inputs to the valuation model are unobservable. The company holds a portfolio of marketable securities to partially fund non-qualified employee benefit plans. A portion of these securities are held in common/collective trust funds and are measured at fair value using NAV per share as a practical expedient. Marketable securities accounted for as trading are recorded at fair value on a recurring basis and are included in Other non-current assets in the consolidated statements of financial position. Changes in unrealized gains and losses on trading securities are included in Other, net in the consolidated statements of earnings and comprehensive income. Investments in held-to-maturity instruments with original maturities greater than three months are recorded at amortized cost. Derivative financial instruments are recognized as assets or liabilities in the financial statements and measured at fair value on a recurring basis. Changes in the fair value of derivative financial instruments that are designated as fair value hedges are recorded in Other, net in the consolidated statements of earnings and comprehensive income, while changes in the fair value of derivative financial instruments that are designated as cash flow hedges are recorded as a -56-NORTHROP GRUMMAN CORPORATION

A component of other comprehensive income until the hedged transaction is recognized in earnings. For derivative financial instruments not designated as hedging instruments, gains or losses resulting from changes in the fair value are reported in Other, net in the consolidated statements of earnings and comprehensive income. The company uses derivative financial instruments to manage its exposure to foreign currency exchange risk related to receipts from customers and payments to suppliers denominated in foreign currencies (i.e., foreign currency forward contracts). For foreign currency forward contracts, where model-derived valuations are appropriate, the company utilizes the income approach to determine the fair value using internal models based on observable market inputs such as forward rates, interest rates, our own credit risk and our counterparties' credit risks. The company does not use derivative financial instruments for trading or speculative purposes, nor does it use leveraged financial instruments. Credit risk related to derivative financial instruments is considered minimal and is managed through the use of multiple counterparties with high credit standards and periodic settlements of positions, as well as by entering into master netting agreements with most of our counterparties.

Inventoried Costs

The company records inventoried costs at the lower of cost or net realizable value. Inventoried costs are categorized into raw materials, work in process, and finished goods. Raw materials are recognized using the average cost method and are generally included in contract cost when allocated to specific contracts. Work in process primarily consists of a) costs associated with specific anticipated contracts or costs incurred in excess of existing contract requirements, which are probable of recovery, and b) costs associated with unsatisfied performance obligations on contracts accounted for using point in time revenue recognition. Finished goods primarily consist of inventory maintained in support of sustainment contracts. Inventoried costs include direct production costs, factory and engineering overhead, production tooling costs, and allowable G&A. G&A included in inventoried costs, net was \$100A million and \$65A million as of December 31, 2024 and 2023, respectively. Inventoried costs are classified as current assets and include amounts related to contracts having production cycles longer than one year due to the long-cycle nature of our business.

Cash Surrender Value of Life Insurance Policies

The company maintains whole life and split-dollar life insurance policies primarily on former officers and executives. Whole life insurance policies are recorded at their cash surrender value as determined by the insurance carrier, and split-dollar life insurance policies are recorded at the lesser of their cash surrender value or premiums paid. These policies are utilized as a partial funding source for deferred compensation and other non-qualified employee retirement plans. As of December 31, 2024 and 2023, the carrying values associated with these policies were \$416 million and \$399 million, respectively, and are recorded in Other non-current assets in the consolidated statements of financial position.

Property, Plant and Equipment

Property, plant and equipment (PP&E) are depreciated over the estimated useful lives of individual assets. Machinery and other equipment is primarily depreciated using declining-balance methods. The other asset categories are generally depreciated using the straight-line method. Depreciation expense is generally an allowable and allocable cost in accordance with applicable FAR and CAS requirements and is recorded in the same segment where the related assets are held. However, the additional depreciation expense related to the step-up in fair value of PP&E acquired through business combinations is recorded in unallocated corporate expense within operating income as such depreciation is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. Major classes of PP&E and their useful lives are as follows:

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Land and land improvements

Up to 40(1)'s 782A \$742A Buildings and improvements Up to 45A, 031A 3,605A Machinery and other equipment Up to 10,389A 9,641A Capitalized software costs 3-5779A 553A Leasehold improvements

Lease Term(2), 3,288A 3,076A Property, plant and equipment, at cost 19,269A 17,617A Accumulated depreciation (8,733)(7,964) Property, plant and equipment, net \$10,536A 9,653A (1)

Land is not a depreciable asset. (2) Leasehold improvements are depreciated over the shorter of the useful life of the asset or lease term. During the fourth quarter of 2020, the company completed a sale of equipment to a customer on a restricted Aeronautics Systems program for \$444A million. The company previously intended to use the equipment for internal purposes so we recognized the acquisition costs as capital expenditures and included the equipment in PP&E. As we regularly sell this type of equipment to customers in the ordinary course of business, we recorded the sale as a revenue transaction and included the net book value of the equipment in Operating costs and expenses. Although we generally classify proceeds from revenue transactions as cash inflows from operating activities, we recognized the proceeds from this transaction as cash inflows from investing activities, consistent with our prior recognition of the cost to acquire the equipment as capital expenditures. The company received the final cash payment of \$155 million related to the equipment sale during 2022 and included it in Proceeds from sale of equipment to a customer in the consolidated statements of cash flows. During the year ended December 31, 2022, the company acquired \$46A million of internal use software through long-term financing directly with the supplier. The software was recorded in PP&E as a non-cash investing activity and the related liability was recorded in long-term debt as a non-cash financing activity. During the year ended December 31, 2023, the company received lease incentives for landlord funded leasehold improvements of \$55A million related to Space Systems real estate leases, which were recorded in PP&E and included in non-cash investing activities. On December 28, 2022 the company acquired certain leased land in exchange for company-owned land, which had been used previously for production-related activities at Space Systems. The exchange was accounted for as a nonmonetary transaction, and the acquired land, valued at approximately \$155A million, was recorded in PP&E as a non-cash investing activity. The transaction resulted in a \$96A million gain, which was reflected in operating costs and expenses in the consolidated statements of earnings and comprehensive income. Non-cash investing activities also include capital expenditures incurred but not yet paid of \$242A million, \$75A million and \$113A million as of December 31, 2024, 2023 and 2022, respectively.

Sale of Minority Investment

In July 2023, the company sold its minority investment in an Australian business for AUD \$235A million (the equivalent of \$157A million upon settlement). The sale resulted in a pre-tax gain of \$97A million, which is reflected in Other, net on the consolidated statements of earnings and comprehensive income for the year ended December 31, 2023. Proceeds from the sale are included in investing activities on the consolidated statement of cash flows for the year ended December 31, 2023.

Goodwill and Other Purchased Intangible Assets

Goodwill and other purchased intangible asset balances are included in the identifiable assets of their assigned business segment. However, the company includes the amortization of other purchased intangible assets in unallocated corporate expense within operating income as such amortization is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. The company's customer-related intangible assets are generally amortized over their respective useful lives based on the pattern in which the future economic benefits of the intangible assets are expected to be consumed. Other intangible assets are generally amortized on a straight-line basis over their estimated useful lives.

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The company leases certain buildings, land and equipment. At contract inception, we determine whether a contract is or contains a lease and whether the lease should be classified as an operating or finance lease. Operating lease balances are included in Operating lease right-of-use assets. Other current liabilities, and Operating lease liabilities in our consolidated statements of financial position. The company recognizes operating lease right-of-use assets and operating lease liabilities based on the present value of the future minimum lease payments over the lease term at commencement date. We use our incremental borrowing rate based on the information available at commencement date to determine the present value of future payments and the appropriate lease classification. Many of our leases include renewal options aligned with our contract terms. We define the initial lease term to include renewal options determined to be reasonably certain. We do not recognize a right-of-use asset and a lease liability for leases with an initial term of 12 months or less; we recognize lease expense for these leases on a straight-line basis over the lease term. We elected the practical expedient to not separate lease components from nonlease components and applied that practical expedient to all material classes of leased assets. Many of the company's real property lease agreements contain incentives for tenant improvements, rent holidays or rent escalation clauses. For tenant improvement incentives received, if the incentive is determined to be a leasehold improvement owned by the company, we generally record the incentives as a reduction to the right-of-use asset, which reduces rent expense over the lease term. For rent holidays and rent escalation clauses during the lease term, the company records rental expense on a straight-line basis over the term of the lease. For these lease incentives, the company uses the date of initial possession as the commencement date, which is generally when the company is given the right of access to the space and begins to make improvements in preparation for intended use. Finance leases are not material to our consolidated financial statements and the company is not a lessor in any material arrangements. We do not have any material restrictions or covenants in our lease agreements, sale-leaseback transactions, land easements or residual value guarantees.

Litigation, Commitments and Contingencies

We accrue for litigation, commitments and contingencies when management, after considering the facts and circumstances of each matter as then known to management, has determined it is probable a liability will be found to have been incurred and the amount of the loss can be reasonably estimated. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, the low end of the range is recorded. Legal fees are generally expensed as incurred. Due to the inherent uncertainties surrounding gain contingencies, we generally do not recognize potential gains until realized.

Environmental Costs

We accrue for environmental liabilities when management determines that, based on the facts and circumstances known to the company, it is probable the company will incur costs to address environmental impacts and the costs are reasonably estimable. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, we record the low end of the range. The company typically projects environmental costs for up to 30 years, records environmental liabilities on an undiscounted basis, and excludes asset retirement obligations and certain legal costs. At sites involving multiple parties, we accrue environmental liabilities based upon our expected share of liability, considering the financial viability of other liable parties.

Retirement Benefits

The company sponsors various defined benefit pension plans and defined contribution retirement plans covering substantially all employees. In most cases, our defined contribution plans provide for a company match of employee contributions. The company also provides postretirement benefits other than pensions to eligible retirees and qualifying dependents, consisting principally of health care and life insurance benefits. The liabilities, unamortized prior service credits and annual income or expense of the company's defined benefit pension and OPB plans are determined using methodologies that involve several actuarial assumptions. Because U.S. government regulations provide for the costs of pension and OPB plans to be charged to our contracts in accordance with applicable FAR and CAS requirements, we calculate retiree benefit plan costs under both FAS and CAS methods. While both FAS and CAS recognize a normal service cost component in measuring periodic pension cost, there are differences in the way the components of annual pension costs are calculated under each method. Measuring plan obligations under FAS and CAS also includes different assumptions and models, such as in estimating returns on plan assets, calculating interest expense and the periods over which gains/losses related to pension assets and actuarial changes are recognized. As a result, annual retiree benefit plan expense amounts for -59-NORTHROP GRUMMAN CORPORATION

FAS and CAS are different from the amounts for CAS in any given reporting period even though the ultimate cost of providing benefits over the life of the plans is the same under each method. CAS retiree benefit plan costs are charged to contracts and are included in segment operating income, and the difference between the service cost component of FAS expense and total CAS expense (the FAS/CAS operating adjustment) is recorded in operating income at the consolidated company level. Not all net periodic pension expense is recognized in net earnings in the year incurred because it is allocated as production costs and a portion remains in inventory at the end of any given reporting period. Actuarial gains and losses are immediately recognized in net periodic benefit cost for FAS through MTM benefit (expense) upon annual rereasurement in the fourth quarter, or on an interim basis as triggering events warrant rereasurement. Prior service credits are recognized as a component of Accumulated other comprehensive loss and amortized into earnings in future periods.

Stock Compensation

The company's stock compensation plans are classified as equity plans. Compensation expense for stock awards is measured at the grant date based on the fair value of the award and is recognized over the vesting period (generally three years), net of estimated forfeitures. The company issues stock awards in the form of restricted performance stock rights and restricted stock rights. The fair value of stock awards and performance stock awards is determined based on the closing market price of the company's common stock on the grant date. The fair value of market-based stock awards is determined at the grant date using a Monte Carlo simulation model. For purposes of measuring compensation expense for performance awards, the number of shares ultimately expected to vest is estimated at each reporting date based on management's expectations regarding the relevant performance criteria. At each reporting date, the number of shares used to calculate compensation expense and diluted earnings per share is adjusted to reflect the number ultimately expected to vest. Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss, net of tax, are as follows:

December 31 \$ in millions 2024 2023 Cumulative translation adjustment \$(140)\$ (138) Other, net (12) 10A Total accumulated other comprehensive loss \$(152)\$ (128) Related Party Transactions

For all periods presented, the company had no material related party transactions. Accounting Standards Updates

On November 27, 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2023-07 Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures. Among other new disclosure requirements, ASU 2023-07 requires companies to disclose significant segment expenses that are regularly provided to the chief operating decision maker. We adopted the standard effective January 1, 2024 and applied the disclosure requirements retrospectively to all prior periods presented in the financial statements. Adoption of ASU 2023-07 did not have an impact on the company's consolidated financial position, results of operations and/or cash flows. On December 14, 2023, the FASB issued ASU No. 2023-09 Income Taxes (Topic 740): Improvements to Income Tax Disclosures. ASU 2023-09 requires companies to disclose, on an annual basis, specific categories in the effective tax rate reconciliation and provide additional information for reconciling items that meet a

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The company maintains a commercial paper program that serves as a source of short-term financing with capacity to issue unsecured commercial paper notes up to \$2.5A billion. There were no commercial paper borrowings outstanding at December 31, 2024 and December 31, 2023, respectively.Credit FacilityThe company maintains a five-year senior unsecured credit facility in an aggregate principal amount of \$2.5 billion (the "2022 Credit Agreement") that matures in August 2027. The revolving credit facility established under the 2022 Credit Agreement is intended to support the company's commercial paper program and other general corporate purposes. Commercial paper borrowings reduce the amount available for borrowing under the 2022 Credit Agreement. At December 31, 2024, there were no borrowings outstanding under this facility. The 2022 Credit Agreement contains generally customary terms and conditions, including covenants restricting the company's ability to sell all or substantially all of its assets, merge or consolidate with another entity or undertake other fundamental changes and incur liens. The company also cannot permit the ratio of its debt to capitalization (as set forth in the credit agreement) to exceed 65 percent. At December 31, 2024, the company was in compliance with all covenants under its credit agreement.Unsecured Senior Notes Issuance of Senior NotesIn January 2024, the company issued \$2.5A billion of unsecured senior notes for general corporate purposes, including debt repayment, share repurchases, and working capital, as follows:\$500 million of 4.60% senior notes due 2029 (the "2029 Notes"),\$850 million of 4.90% senior notes due 2034 (the "2034 Notes"), and\$1.15 billion of 5.20% senior notes due 2054 (the "2054 Notes").In February 2023, the company issued \$2.0A billion of unsecured senior notes for general corporate purposes, including debt repayment, share repurchases, and working capital, as follows:\$1.0A billion of 4.70% senior notes due 2033 (the "2033 Notes") and\$1.0A billion of 4.95% senior notes due 2053 (the "2053 Notes").We refer to the 2029 Notes, 2033 Notes, 2034 Notes, 2053 Notes and 2054 Notes, together, as the "Notes."Interest on the notes is payable semi-annually in arrears. The notes are generally subject to redemption, in whole or in part, at the company's discretion at any time, or from time to time, prior to maturity at a redemption price equal to the greater of 100% of the principal amount of the notes to be redeemed or an applicable "make-whole" amount, plus accrued and unpaid interest.-68-NORTHROP GRUMMAN CORPORATIONA A A A A A A A A A A A A A A A A A A A Repayments of Senior NotesIn August 2023, the company repaid \$1.05A billion of 3.25 percent unsecured senior notes upon maturity.Subsequent Event - In January 2025, the company repaid \$1.5A billion of 2.93 percent unsecured senior notes upon maturity.Long-term debt consists of the following:\$ in millionsDecember3120242023Fixed-rate notes and debentures, maturing inInterestRate20252.93%1,500A \$1,500A 20267.75%-7.88%527A 527A 20273.20%750A 750A 20283.25%2,000A 2,000A 20294.60%500A A A A 20304.40%750A 750A 20317.75%466A 466A 20334.70%1,000A 1,000A 20344.90%850A A A A 20405.05% -5.15%800A 800A 20434.75%950A 950A 20453.85%600A 600A 20474.03%2,250A 2,250A 20505.25%1,000A 1,000A 20534.95%1,000A 1,000A 20545.20%1,150A A A A OtherVarious264A 332A De issuance costs(83)(69)Total long-term debt16,274A 13,856A Less: current portion(11,582A 70A Long-term debt, net of current portions14,692A \$13,786A (1) The current portion of long-term debt is recorded in Other current liabilities in the consolidated statements of financial position.The estimated fair value of long-term debt was \$15.3 billion and \$13.4 billion as of December 31, 2024 and 2023, respectively. We calculated the fair value of long-term debt using Level 2 inputs, based on interest rates available for debt with terms and maturities similar to the company's existing debt arrangements. Indentures underlying long-term debt issued by the company or its subsidiaries contain various restrictions with respect to the issuer, including one or more restrictions relating to limitations on liens, sale-leaseback arrangements and funded debt of subsidiaries. The majority of these fixed rate notes and debentures are subject to redemption at the company's discretion at any time prior to maturity in whole or in part at the principal amount plus any make-whole premium and accrued and unpaid interest. Interest on these fixed rate notes and debentures are payable semi-annually in arrears.Total interest payments, net of interest received and capitalized, were \$475 million, \$437 million and \$474 million for the years ended December 31, 2024, 2023 and 2022, respectively.-69-NORTHROP GRUMMAN CORPORATIONA A A A A A A A A A A A A A A A A A A A Maturities of long-term debt as of December 31, 2024, are as follows:\$ in millionsYear Ending December 312025\$1,582A 2026534A 2027755A 20282,044A 2029592A Thereafter10,871A Total principal payments16,378A Unamortized premium on long-term debt, net of discount(21)Debt issuance costs(83)Total long-term debts16,274A 10. INVESTIGATIONS, CLAIMS AND LITIGATIONFor over 25 years, the company has worked closely with the United States Navy, the United States Environmental Protection Agency, the New York State Department of Environmental Conservation, the New York State Department of Health and other federal, state and local governmental authorities, to address environmental conditions allegedly resulting from historic operations at the former United States Navy and Grumman facilities in Bethpage, New York. We have incurred, and expect to continue to incur, as included in Note 11, substantial remediation costs related to these Bethpage environmental conditions, including potential costs relating to unanticipated developments such as new discoveries of potential contaminants. It is also possible that applicable remediation standards and other requirements to which we are subject may continue to change, and that our costs may increase materially. In 2022, we resolved several disputes and regulatory proceedings concerning the scope and allocation of remediation responsibilities and costs related to this site and we continue remediation consistent with agreements through which those disputes were resolved. The company continues to be involved in other remediation-related disputes, none of which are material individually or in the aggregate. We are also a party to various individual lawsuits and a putative class action in the Eastern District of New York alleging personal injury and property damage related to the legacy Bethpage environmental conditions (the "Bethpage EDNY case"). The court has stayed the filed individual lawsuits, pending its decision on class certification, which the court will undertake if an ongoing mediation between the parties is unsuccessful. We are also a party, and may become a party, to other lawsuits brought by or against insurance carriers, and by other individual plaintiffs and/or putative classes, as well as other parties. We cannot at this time predict or reasonably estimate the potential outcomes or ranges of possible liability of the Bethpage EDNY cases. The company received from the U.S. Department of Justice (DOJ) a criminal subpoena on December 9, 2022, and a civil investigative demand (CID) on February 2, 2023, both seeking information regarding financial and cost accounting and controls that appears focused on the interest rate assumptions the company used to determine our U.S. Government Cost Accounting Standards (CAS) pension expense, which we discuss in Note 11 below. The company is engaging with the government and responding to the requests. We cannot at this point predict the outcome of these matters. The company is a party to various other investigations, lawsuits, arbitration, claims, enforcement actions and other legal proceedings, including government investigations and claims, that arise in the ordinary course of our business. The nature of legal proceedings is such that we cannot assure the outcome of any particular matter. However, based on information available to the company to date, the company does not believe that the outcome of any of these other matters pending against the company is likely to have a material adverse effect on the company's consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.11. COMMITMENTS AND CONTINGENCIESU.S. Government Cost Claims and ContingenciesFrom time to time, the company is advised of claims by the U.S. government concerning certain potential disallowed costs, plus, at times, penalties and interest. When such findings are presented, the company and U.S. government representatives engage in discussions to enable the company to evaluate the merits of these claims, as well as to -70-NORTHROP GRUMMAN CORPORATIONA A A A A A A A A A A A A A A A A A A A assess the amounts being claimed. Where appropriate, provisions are made to reflect the company's estimated exposure for such potential disallowed costs. Such provisions are reviewed periodically using the most recent information available. The company believes it has adequately reserved for disputed amounts that are probable and reasonably estimable, and that the outcome of any such matters would not have a material adverse effect on its consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.In 2019, the Defense Contract Management Agency (DCMA) raised questions about an interest rate assumption used by the company to determine our CAS pension expense. On June 1, 2020, DCMA provided written notice that the assumptions the company used during the period 2013-2019 were potentially noncompliant with CAS. We submitted a formal response on July 31, 2020, which we believed demonstrates the appropriateness of the assumptions used. On November 24, 2020, DCMA replied to the company's response, disagreeing with our position and requesting additional input, which we provided on February 22, 2021. We subsequently continued to exchange correspondence and engage with DCMA on this matter, including responding to requests for and providing additional information. On February 15, 2024, DCMA sent to the company a Contracting Officer's determination of noncompliance with CAS, which is an interim, non-final determination, and the parties engaged in discussions. As noted in Note 10 above, the company received from the DOJ a criminal subpoena on December 9, 2022 and a CID on February 2, 2023, both seeking information that appears related to the interest rate assumptions at issue in our discussions with DCMA. The company has responded to requests and expects to continue discussions with the DOJ and DCMA as these matters progress. We cannot at this point predict the outcome of these matters. The sensitivity to changes in interest rate assumptions makes it reasonably possible the outcome of the DCMA matter could have a material adverse effect on our financial position, results of operations and/or cash flows, although we are not currently able to estimate a range of any potential loss.Environmental MattersThe table below summarizes the amount accrued for environmental remediation costs, management's estimate of the amount of reasonably possible future costs in excess of accrued costs and the deferred costs expected to be recoverable through overhead charges on U.S. government contracts as of December 31, 2024 and 2023:\$ in millionsAccrued Costs(1)(2)Reasonably Possible Future Costs in Excess of Accrued Costs(2)Deferred Costs(3)December 31, 2024\$546A \$377A \$507A December 31, 2023\$584A 387A 518A (1)As of December 31, 2024, \$196 million is recorded in Other current liabilities and \$350 million is recorded in Other non-current liabilities. (2)Estimated remediation costs are not discounted to present value. The reasonably possible future costs in excess of accrued costs do not take into consideration amounts expected to be recoverable through overhead charges on U.S. government contracts.(3)As of December 31, 2024, \$186 million is deferred in Prepaid expenses and other current assets and \$321 million is deferred in Other non-current assets. These amounts reflect a \$26A million increase during the second quarter of 2024 in our estimated recovery of certain environmental remediation costs and are evaluated for recoverability on a routine basis.Although management cannot predict whether (i) new information gained as our environmental remediation projects progress, (ii) changes in remediation standards or other requirements to which we are subject, or (iii) other changes in facts and circumstances will materially affect the estimated liability accrued, we do not anticipate that future remediation expenditures associated with our currently identified projects will have a material adverse effect on the company's consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.Financial ArrangementsIn the ordinary course of business, the company uses standby letters of credit and guarantees issued by commercial banks and surety bonds issued principally by insurance companies to guarantee the performance on certain obligations. At December 31, 2024, there were \$484 million of stand-by letters of credit and guarantees and \$272 million of surety bonds outstanding.IndemnificationsThe company has provided indemnifications for certain environmental, income tax and other potential liabilities in connection with certain of its divestitures. The settlement of these liabilities is not expected to have a material -71-NORTHROP GRUMMAN CORPORATIONA A A A A A A A A A A A A A A A A A A A adverse effect on the company's consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.12. RETIREMENT BENEFITSPlan DescriptionsU.S. Defined Benefit Pension Plans "a A The company sponsors several defined benefit pension plans in the U.S. Pension benefits for most participants are based on years of service, age and compensation. It is our policy to fund at least the minimum amount required for qualified plans, using actuarial cost methods and assumptions acceptable under U.S. government regulations, by making payments into benefit trusts separate from the company.U.S. Defined Contribution Plans "a The company also sponsors defined contribution plans covering the majority of its employees, including certain employees covered under collective bargaining agreements. Company contributions vary depending on date of hire, with a majority of employees being eligible for employer matching of employee contributions. Based on date of hire, certain employees are eligible to receive a company non-elective contribution or an enhanced matching contribution in lieu of a defined benefit pension plan benefit. The company's contributions to these defined contribution plans for the years ended December 31, 2024, 2023 and 2022, were \$657A million, \$634 million and \$558 million, respectively.Non-U.S. Benefit Plans "a The company sponsors several benefit plans for non-U.S. employees. These plans are designed to provide benefits appropriate to local practice and in accordance with local regulations. Some of these plans are funded using benefit trusts separate from the company.Medical and Life Benefits "a The company funds a portion of the costs for certain health care and life insurance benefits for a substantial number of its active and retired employees. In addition to a company and employee cost-sharing feature, the health plans also have provisions for deductibles, co-payments, coinsurance percentages, out-of-pocket limits, conformance to a schedule of reasonable fees, the use of managed care providers and coordination of benefits with other plans. The plans also provide for a Medicare carve-out. The company reserves the right to amend or terminate the plans at any time. Certain covered employees and dependents are eligible to participate in plans upon retirement if they meet specified age and years of service requirements. The company provides subsidies to reimburse certain retirees for a portion of the cost of individual Medicare-supplemental coverage purchased directly by the retiree through a private insurance exchange. The company has capped the amount of its contributions for substantially all its remaining postretirement medical and life benefit plans. In addition, after January 1, 2005 (or earlier at some businesses), newly hired employees are not eligible for subsidized postretirement medical and life benefits.Summary Plan ResultsThe cost to the company of its retirement benefit plans is shown in the following table:A Year Ended December 31A Pension BenefitsMedical and Life Benefits\$ in millions202420232022202420232022Components of net periodic benefit cost (benefit)Service cost\$239A \$236A \$367A 4A \$5A \$9A Interest cost1,526A



[illegible]

sales855A 776A 794A Defense Systems sales8,560A 100A %8,289A 100A %7,629A 100A %Mission SystemsU.S.  
government(1)8,322A 81A %7,999A 81A %7,471A 80A %International(21,809A 18A %1,757A 18A %1,809A 19A %Other customers91A 1A %85A 1A %101A 1A %Intersegment  
sales1,177A 1,054A 1,015A Mission Systems sales11,399A 100A %10,895A 100A %10,396A 100A %Space SystemsU.S.  
government(1)10,694A 94A %10,805A 95A %9,516A 95A %International(2)212A 2A %278A 2A %337A 3A %Other customers413A 4A %307A 3A %241A 2A %Intersegment  
sales412A 483A 476A Space Systems sales11,731A 100A %11,873A 100A %10,570A 100A %TotalU.S.  
government(1)35,436A 87A %63,382A 86A %31,323A 86A %International(2)5,000A 12A %4,905A 13A %4,848A 13A %Other customers597A 1A %503A 1A %431A 1A %Total  
Sales\$41,033A 100A %\$39,290A 100A %\$36,602A 100A %(1)Sales to the U.S. government include sales from contracts for which we are the prime contractor, as well as those for which we are  
a subcontractor and the ultimate customer is the U.S. government. Each of the company's segments derives a substantial percentage of its revenue from the U.S. government.(2)  
International sales include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is an international customer.  
These sales include foreign military sales contracted through the U.S. government.(3) Percentages calculated based on external customer sales.-83-NORTHROP GRUMMAN  
CORPORATIONA A A A A A A A A A A A A A A A A A A A A Sales by Contract TypeYear Ended DecemberA 31202420232022\$ in millions\$(1)\$%(1)\$%(1)Aeronautics  
SystemsA A A A A Cost-type5,373A 46A %\$5,235A 50A %\$5,013A 49A %Fixed-price6,414A 54A %5,311A 50A %5,279A 51A %Intersegment sales243A 240A 239A Aeronautics Systems  
sales12,030A 10,786A 10,531A Defense SystemsCost-type4,002A 52A %3,991A 53A %3,516A 51A %Fixed-price3,703A 48A %3,522A 47A %3,319A 49A %Intersegment  
sales855A 776A 794A Defense Systems sales8,560A 8,289A 7,629A Mission SystemsCost-type4,589A 45A %4,116A 42A %3,622A 39A %Fixed-  
price5,633A 55A %5,725A 58A %5,759A 61A %Intersegment sales1,177A 1,054A 1,015A Mission Systems sales11,399A 10,895A 10,396A Space SystemsCost-  
type7,000A 62A %7,637A 67A %6,560A 65A %Fixed-price4,319A 38A %3,753A 33A %3,534A 35A %Intersegment sales412A 483A 476A Space Systems sales11,731A 11,873A 10,570A TotalCost-  
type20,964A 51A %20,979A 53A %18,711A 51A %Fixed-price20,069A 49A %18,311A 47A %17,891A 49A %Total Sales\$41,033A \$39,290A \$36,602A (1)Percentages calculated based on external  
customer sales.-84-NORTHROP GRUMMAN CORPORATIONA A A A A A A A A A A A A A A A A A A A A Sales by Geographic RegionYear Ended DecemberA 31202420232022\$ in  
millions\$(3)\$(3)\$(3)Aeronautics SystemsA A A A United  
States(1)\$10,109A 86A %\$9,167A 87A %\$8,948A 87A %Asia/Pacific694A 6A %607A 6A %708A 7A %Europe947A 8A %736A 7A %585A 6A %Other geographic  
regions(2)37A æ" Å 76A æ" Å 51A æ" Å %Intersegment sales243A 240A 239A Aeronautics Systems sales12,030A 10,786A 10,531A Defense SystemsUnited  
States(1)6,404A 83A %6,022A 80A %5,477A 80A %Asia/Pacific344A 4A %419A 6A %454A 7A %Europe766A 10A %601A 8A %477A 7A %Other geographic  
regions(2)191A 3A %471A 6A %427A 6A %Intersegment sales855A 776A 794A Defense Systems sales8,560A 8,289A 7,629A Mission SystemsUnited  
States(1)8,413A 82A %8,084A 82A %7,572A 81A %Asia/Pacific472A 5A %460A 5A %531A 6A %Europe990A 10A %959A 10A %977A 10A %Other geographic  
regions(2)347A 3A %338A 3A %301A 3A %Intersegment sales1,177A 1,054A 1,015A Mission Systems sales11,399A 10,895A 10,396A Space SystemsUnited  
States(1)11,107A 98A %11,112A 98A %9,757A 97A %Asia/Pacific424A 1A %82A 1A %109A 1A %Europe134A 1A %159A 1A %213A 2A %Other geographic  
regions(2)36A æ" Å 637A æ" Å 15A æ" Å %Intersegment sales412A 483A 476A Space Systems sales11,731A 11,873A 10,570A TotalUnited  
States(1)36,033A 88A %34,385A 88A %31,754A 87A %Asia/Pacific1,552A 4A %1,568A 4A %1,802A 5A %Europe2,837A 7A %2,455A 6A %2,252A 6A %Other geographic  
regions(2)611A 1A %882A 2A %794A 2A %Total Sales\$41,033A \$39,290A \$36,602A (1)No country other than the United States represents greater than 10% of total company sales.(2)Other  
geographic regions are principally comprised of the Middle East.(3)Percentages calculated based on external customer sales.-85-NORTHROP GRUMMAN  
CORPORATIONA A A A A A A A A A A A A A A A A A A A A Segment SalesThe following table presents sales for each of our reportable segments and total intersegment eliminations:Year  
Ended DecemberA 31\$ in millions202420232022SalesAeronautics Systems\$12,030A \$10,786A \$10,531A Defense Systems8,560A 8,289A 7,629A Mission  
Systems11,399A 10,895A 10,396A Space Systems11,731A 11,873A 10,570A Intersegment eliminations(2,687)(2,553)(2,524)/Total sales\$41,033A \$39,290A \$36,602A Intersegment Sales and  
Operating IncomeSales between segments are recorded at values that include intercompany operating income for the performing segment based on that segment's estimated average  
operating margin rate for external sales. Such intercompany operating income is eliminated in consolidation, so that the company's total sales and total operating income reflect only those  
transactions with external customers. See Note 1 for additional information.The following table presents intersegment sales and operating income:A Year Ended DecemberA 31\$ in  
millions202420232022A SalesOperatingIncomeSalesOperatingIncomeSalesOperatingIncomeSalesOperatingIncomeSalesOperatingIncomeAeronautics  
Systems\$243A \$25A \$240A \$22A \$239A \$27A Defense Systems855A 106A 776A 94A 794A 94A Mission Systems1,177A 181A 1,054A 167A 1,015A 167A Space  
Systems412A 44A 483A 52A 476A 52A Total\$2,687A \$366A \$335A \$324A \$340A Capital Expenditures and Depreciation and AmortizationThe following table presents capital  
expenditures and depreciation and amortization for each of our reportable segments and for Corporate:Year Ended December 31\$ in millions202420232022202420232022A Capital  
ExpendituresDepreciation and AmortizationAeronautics Systems\$596A \$504A \$490A \$380A \$384A \$322A Defense Systems139A 164A 166A 180A 184A 174A Mission  
Systems314A 288A 248A 255A 246A 242A Space  
Systems652A 745A 473A 362A 370A 323A Corporate(1)66A 74A 58A 193A 154A 281A Total\$1,767A \$1,775A \$1,435A \$1,370A \$1,338A \$1,342A (1)Corporate amounts include the amortization  
of purchased intangible assets and the additional depreciation expense related to the step-up in fair value of PP&E acquired through business combinations as they are not considered part of  
management's evaluation of segment operating performance.AssetsOur CODM does not use assets by segment to evaluate segment performance or allocate resources. Therefore, we do not  
disclose assets by segment.-86-NORTHROP GRUMMAN CORPORATIONA A A A A A A A A A A A A A A A 16. SUBSEQUENT EVENTOn January 29, 2025, the company entered  
into a definitive agreement to sell substantially all of the Immersive Mission Solutions (IMS) operating unit of Defense Systems for \$327A million in cash. IMS is a provider of mission training  
and satellite ground network communications software for U.S. government customers. The transaction, which is subject to final government approvals and closing conditions, is expected to be  
completed mid-year 2025. We expect to recognize an after-tax gain of approximately \$150A million when the transaction closes.-87-NORTHROP GRUMMAN  
CORPORATIONA A A A A A A A A A A A A A A A A A A A Item 9. Changes in and Disagreements with Accountants on Accounting and Financial DisclosureNone.Item 9A. Controls and  
ProceduresDISCLOSURE CONTROLS AND PROCEDURESOur principal executive officer (Chair, Chief Executive Officer and President) and principal financial officer (Corporate Vice President  
and Chief Financial Officer) have evaluated the company's disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) of the Securities Exchange Act of 1934 (the  
Exchange Act)) as of December 31, 2024, and have concluded that these controls and procedures are effective to ensure that information required to be disclosed by us in the reports that we  
file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. These disclosure controls and  
procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in the reports that we file or submit is accumulated and  
communicated to management, including the principal executive officer and the principal financial officer, as appropriate to allow timely decisions regarding required disclosure.CHANGES IN  
INTERNAL CONTROL OVER FINANCIAL REPORTINGDuring the three months ended December 31, 2024, no change occurred in our internal control over financial reporting that materially  
affected, or is reasonably likely to materially affect, our internal control over financial reporting.Item 9B. Other InformationMANAGEMENT'S REPORT ON INTERNAL CONTROL OVER  
FINANCIAL REPORTINGThe management of Northrop Grumman Corporation (the company) prepared and is responsible for the consolidated financial statements and all related financial  
information contained in this Annual Report. This responsibility includes establishing and maintaining effective internal control over financial reporting. The company's internal control over  
financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance  
with accounting principles generally accepted in the United States of America.To comply with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, the company designed and  
implemented a structured and comprehensive assessment process to evaluate its internal control over financial reporting across the enterprise. The assessment of the effectiveness of the  
company's internal control over financial reporting is based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations  
of the Treadway Commission. Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect  
misstatements. Management regularly monitors its internal control over financial reporting, and actions are taken to correct deficiencies as they are identified. Based on its assessment,  
management has concluded that the company's internal control over financial reporting was effective as of December 31, 2024.Deloitte & Touche LLP issued an attestation report dated  
January 29, 2025, concerning the company's internal control over financial reporting, which is contained in this Annual Report. The company's consolidated financial statements as of  
and for the year ended December 31, 202

reference to the Proxy Statement for the 2025 Annual Meeting of Shareholders.Item 12. Security Ownership of Certain Beneficial Owners and Management will be incorporated herein by reference to the Proxy Statement for the 2025 Annual Meeting of Shareholders.For a description of securities authorized under our equity compensation plans, see Note 13 to the consolidated financial statements.Item 13. Certain Relationships and Related Transactions, and Director IndependenceThe information as to Certain Relationships and Related Transactions and Director Independence will be incorporated herein by reference to the Proxy Statement for the 2025 Annual Meeting of Shareholders.Item 14. Principal Accountant Fees and ServicesThe information as to Principal Accountant Fees and Services will be incorporated herein by reference to the Proxy Statement for the 2025 Annual Meeting of Shareholders.-92-NORTHROP GRUMMAN CORPORATIONAAA AAA AAA AAA AAA AAA AAA AAA AAA AAA PARTA IVItem 15. Exhibits, Financial Statement Schedules(a)1. Report of Independent Registered Public Accounting Firm (PCAOB ID No. 34)Financial StatementsConsolidated Statements of Earnings and Comprehensive IncomeConsolidated Statements of Financial PositionConsolidated Statements of Cash FlowsConsolidated Statements of Changes in Shareholders' EquityNotes to Consolidated Financial Statements2. Financial Statement SchedulesAll schedules have been omitted because they are not applicable, not required, or the information has been otherwise supplied in the consolidated financial statements or notes to the consolidated financial statements.3. Exhibits2(a)Agreement and Plan of Merger dated as of September 17, 2017, among Northrop Grumman Corporation, Neptune Merger, Inc. and Orbital ATK, Inc. (incorporated by reference to Exhibit 2.1 to Form 8-K filed September 18, 2017, File No. 001-16411) 2(b)Transaction Agreement dated as of April 28, 2014, among Alliant Techsystems Inc., Vista Spino Inc., Vista Merger Sub Inc. and Orbital Sciences Corporation (incorporated by reference to Exhibit 2.1 to Alliant Techsystems Inc. (now known as Northrop Grumman Innovation Systems, Inc.) Form 8-K filed May 2, 2014, File No. 001-16411) 3(a) Restated Certificate of Incorporation of Northrop Grumman Corporation, dated May 15, 2024 (incorporated by reference to Exhibit 3.1 to Form 8-K filed May 16, 2024, File No. 001-16411) 3(b) Amended and Restated Bylaws of Northrop Grumman Corporation dated May 17, 2023 (incorporated by reference to Exhibit 3.2 to Form 8-K filed May 19, 2023, File No. 001-16411) 4(a) Indenture dated as of October 15, 1994, between Northrop Grumman Corporation (now Northrop Grumman Systems Corporation) and The Chase Manhattan Bank (National Association), Trustee (incorporated by reference to Exhibit 4.1 to Form 8-K filed October 25, 1994, File No. 001-3229) 4(b) First Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation, The Bank of New York Mellon (successor trustee to JPMorgan Chase Bank and The Chase Manhattan Bank, N.A.), Titan II, Inc. (formerly known as Northrop Grumman Corporation), and Titan Holdings II, L.P., to Indenture dated as of October 15, 1994, between Northrop Grumman Corporation (now Northrop Grumman Systems Corporation) and The Chase Manhattan Bank, N.A., Trustee (incorporated by reference to Exhibit 4.2 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(c) Second Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation, The Bank of New York Mellon (successor trustee to JPMorgan Chase Bank and The Chase Manhattan Bank, N.A.), Titan Holdings II, L.P., and Northrop Grumman Corporation (formerly known as New P, Inc.), to Indenture dated as of October 15, 1994, between Northrop Grumman Corporation (now Northrop Grumman Systems Corporation) and The Chase Manhattan Bank, N.A., Trustee (incorporated by reference to Exhibit 4.2 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(d) Form of Officers' Certificate (without exhibits) establishing the terms of Northrop Grumman Corporation's (now Northrop Grumman Systems Corporation's) 7.875% Debentures due 2026 (incorporated by reference to Exhibit 4.3 to Form S-4 Registration Statement No. A 333-02653 filed April 19, 1996) 4(e) Form of Northrop Grumman Corporation's (now Northrop Grumman Systems Corporation's) 7.875% Debentures due 2026 (incorporated by reference to Exhibit 4.6 to Form S-4 Registration Statement No. A 333-02653 filed April 19, 1996) -93-NORTHROP GRUMMAN CORPORATIONAAA AAA AAA AAA AAA AAA AAA AAA AAA AAA 4(f) Form of Officers' Certificate establishing the terms of Northrop Grumman Corporation's (now Northrop Grumman Systems Corporation's) 7.75% Debentures due 2031 (incorporated by reference to Exhibit 4.10 to Form 8-K filed April 17, 2001, File No. 001-16411) 4(g) Senior Indenture dated as of December 15, 1991, between Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and The Bank of New York, as trustee, under which its 7.75% and 6.98% debentures due 2026 and 2036 were issued, and specimens of such debentures (incorporated by reference to Exhibit 4.1 to the Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 1996, filed June 11, 1996, File No. 001-3998) 4(h) Supplemental Indenture with respect to Senior Indenture dated December 15, 1991, dated as of April 3, 2001, among Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.7 to Form 10-Q for the quarter ended March 31, 2001, filed May 10, 2001, File No. 001-16411) 4(i) Supplemental Indenture with respect to Senior Indenture dated December 15, 1991, dated as of December 20, 2002, among Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee (incorporated by reference to Exhibit 4(t) to Form 10-K for the year ended December 31, 2002, filed March 24, 2003, File No. 001-16411) 4(j) Third Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), The Bank of New York Mellon (formerly known as The Bank of New York), as trustee, Titan II, Inc. (formerly known as Northrop Grumman Corporation), and Titan Holdings II, L.P., to Senior Indenture dated December 15, 1991, between Litton Industries, Inc. and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.5 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(k) Fourth Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), The Bank of New York Mellon (formerly known as The Bank of New York) as trustee, Titan Holdings II, L.P., and Northrop Grumman Corporation (formerly known as New P, Inc.), to Senior Indenture dated December 15, 1991, between Litton Industries, Inc. and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.6 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(l) Indenture between TRW Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and Mellon Bank, N.A., as trustee, dated as of May 1, 1986 (incorporated by reference to Exhibit 2 to the Form 8-A Registration Statement of TRW Inc. dated July 3, 1986, File No. 001-02384) 4(m) First Supplemental Indenture between TRW Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and Mellon Bank, N.A., as trustee, dated as of August 24, 1989 (incorporated by reference to Exhibit 4(b) to Form S-3 Registration Statement No. A 33-30350 of TRW Inc.) 4(n) Fifth Supplemental Indenture between TRW Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and The Chase Manhattan Bank, as successor trustee, dated as of June 2, 1999 (incorporated by reference to Exhibit 4(f) to Form S-4 Registration Statement No. A 333-83227 of TRW Inc. filed July 20, 1999) 4(o) Ninth Supplemental Indenture dated as of December 31, 2009 among Northrop Grumman Space & Mission Systems Corp. (predecessor-in-interest to Northrop Grumman Systems Corporation); The Bank of New York Mellon, as successor trustee; Northrop Grumman Corporation; and Northrop Grumman Systems Corporation (incorporated by reference to Exhibit 4(p) to Form 10-K for the year ended December 31, 2009, filed February 9, 2010, File No. 001-16411) -94-NORTHROP GRUMMAN CORPORATIONAAA AAA AAA AAA AAA AAA AAA AAA AAA AAA 4(p) Tenth Supplemental Indenture dated as of March 30, 2011, by and among Northrop Grumman Systems Corporation (successor-in-interest to Northrop Grumman Space & Mission Systems Corp. and TRW, Inc.), The Bank of New York Mellon, as successor trustee to JPMorgan Chase Bank and to Mellon Bank, N.A., Titan II Inc. (formerly known as Northrop Grumman Corporation), and Titan Holdings II, L.P., to Indenture between TRW Inc. and Mellon Bank, N.A., as trustee, dated as of May 1, 1986 (incorporated by reference to Exhibit 4.7 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(q) Eleventh Supplemental Indenture dated as of March 30, 2011, by and among Northrop Grumman Systems Corporation (successor-in-interest to Northrop Grumman Space & Mission Systems Corp. and TRW Inc.), The Bank of New York Mellon, as successor trustee to JPMorgan Chase Bank and to Mellon Bank, N.A., Titan Holdings II, L.P., and Northrop Grumman Corporation (formerly known as New P, Inc.) to Indenture between TRW Inc. and Mellon Bank, N.A., as trustee, dated as of May 1, 1986 (incorporated by reference to Exhibit 4.8 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(r) Twelfth Supplemental Indenture, dated as of August 25, 2021, to the Indenture dated as of May 1, 1986, by and among Northrop Grumman Systems Corporation, Northrop Grumman Corporation and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.1 to Form 8-K filed August 27, 2021, File No. 001-16411) 4(s) Thirteenth Supplemental Indenture, dated as of August 25, 2021, to the Indenture dated as of May 1, 1986, by and among Northrop Grumman Systems Corporation, Northrop Grumman Corporation and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.2 to Form 8-K filed August 27, 2021, File No. 001-16411) 4(t) Indenture dated as of November 21, 2001, between Northrop Grumman Corporation and JPMorgan Chase Bank, as trustee (incorporated by reference to Exhibit 4.1 to Form 8-K filed November 21, 2001, File No. 001-16411) 4(u) Second Supplemental Indenture dated as of November 8, 2010, between Northrop Grumman Corporation and The Bank of New York Mellon, as successor trustee, to Indenture dated as of November 21, 2001 (incorporated by reference to Exhibit 4(a) to Form 8-K filed November 8, 2010, File No. 001-16411) 4(v) Form of Northrop Grumman Corporation's 5.050% Senior Note due 2040 (incorporated by reference to Exhibit C to Exhibit 4(a) to Form 8-K filed November 8, 2010, File No. 001-16411) 4(w) Third Supplemental Indenture dated as of March 30, 2011, by and among Titan II, Inc. (formerly known as Northrop Grumman Corporation), The Bank of New York Mellon, as successor trustee to JPMorgan Chase Bank, and Titan Holdings II, L.P., to Indenture dated as of November 21, 2001 between Northrop Grumman Corporation and JPMorgan Chase Bank, as trustee (incorporated by reference to Exhibit 4.9 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(x) Fourth Supplemental Indenture dated as of March 30, 2011, by and among Titan Holdings II, L.P., The Bank of New York Mellon, as successor trustee to JPMorgan Chase Bank, and Northrop Grumman Corporation (formerly known as New P, Inc.), to Indenture dated as of November 21, 2001 between Northrop Grumman Corporation and JPMorgan Chase Bank, as trustee (incorporated by reference to Exhibit 4.10 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011, File No. 001-16411) 4(y) Fifth Supplemental Indenture, dated as of May 31, 2013, between Northrop Grumman Corporation and The Bank of New York Mellon, as successor to JPMorgan Chase Bank, Trustee, to Indenture dated as of November 21, 2001 (incorporated by reference to Exhibit 4(a) to Form 8-K filed May 31, 2013, File No. 001-16411) 4(z) Form of 4.750% Senior Note due 2043 (incorporated by reference to Exhibit C to Exhibit 4(a) to Form 8-K filed May 31, 2013, File No. 001-16411) 4(aa) Sixth Supplemental Indenture, dated as of February 6, 2015, between Northrop Grumman Corporation and The Bank of New York Mellon, as successor to JPMorgan Chase Bank, Trustee, to Indenture dated as of November 21

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in whole or in part on the sale of insurance to you. If you have questions, contact your Unum IDI Executive Benefits Representative.

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| TitleA A A DateA A A Broker of RecordA A A Date(type or print clearly)cc: Donna Dinsmore, Underwriting Consultant - IDI Case Design UnderwritingNorthrop Grumman 2022 Revision dms5-EX-10.T 3 noc-12312024exel10t.htm GROUP PERSONAL EXCESS LIABILITY POLICY DocumentExhibit 10(h)GROUP PERSONAL EXCESS LIABILITY POLICYINTRODUCTIONThis is your Chubb Group Personal Excess Liability Policy. Together with your Coverage Summary, it explains your coverages and other conditions of your insurance in detail.This policy is a contract between you and us. READ YOUR POLICY CAREFULLY and keep it in a safe place.AgreementWe agree to provide the insurance described in this policy in return for the premium paid by you or the Sponsoring Organization and your compliance with the policy conditions.DefinitionsIn this policy, we use words in their plain English meaning. Words with special meanings are defined in the part of the policy where they are used. The few defined terms used throughout the policy are defined here:You means the individual who is a member of the Defined Group shown as the Insured named in the Coverage Summary.Spouse means a partner in marriage or a partner in a civil union recognized under state law and who lives with you.We and us mean the insurance company named in the Coverage Summary.Family member means your spouse or domestic partner or other relative who lives with you, or any other person under 25 in your care or your relative's care who lives with you.Domestic partner means a person in a legal or personal relationship with you, who lives with you and shares a common domestic life with you, and meeting all of the benefits eligibility criteria as defined by the Sponsoring Organization.Sponsoring Organization means the entity, corporation, partnership or sole proprietorship sponsoring and defining the criteria for qualification as an Insured.Policy means your entire Group Personal Excess Liability Policy, including the Coverage Summary.Coverage Summary means the most recent Coverage Summary we issued to you, including any endorsements.Occurrence means an accident or offense to which this insurance applies and which begins within the policy period. Continuous or repeated exposure to substantially the same general conditions unless excluded is considered to be one occurrence.Business means any employment, trade, occupation, profession, or farm operation including the raising or care of animals or any activities intended to realize a benefit or financial gain engaged in on a full-time, part-time or occasional basis.Defined Group means those individuals meeting the criteria for qualification as an Insured as defined by the Sponsoring Organization and accepted by us.Follow form means we cover damages to the extent they are both covered under the Required Primary Underlying Insurance and, not excluded under this policy. Also, the amount of coverage, defense coverages, cancellation and "other insurance" provisions of this policy supersede and replace the similar provisions contained in such other policies. When this policy is called upon to pay losses in excess of required primary underlying policies exhausted by payment of claims, we do not provide broader coverage than provided by such policies. When no primary underlying coverage exists, the extent of coverage provided on a follow form basis will be determined as if the required primary underlying insurance had been purchased from us. Covered person means:â€¢you or a family member;â€¢any person using a vehicle or watercraft covered under this policy with permission from you or a family member with respect to their legal responsibility arising out of its use;â€¢any other person who is a covered person under your Required Primary Underlying Insurance;â€¢any person or organization with respect to their legal responsibility for covered acts or omissions of you or a family member; orâ€¢any combination of the above.Damages mean the sum that is paid or is payable to satisfy a claim settled by us or resolved by judicial procedure or by a compromise we agree to in writing.Personal injury means the following injuries, and resulting death:â€¢bodily injury;â€¢shock, mental anguish, or mental injury;â€¢false arrest, false imprisonment, or wrongful detention;â€¢wrongful entry or eviction;â€¢malicious prosecution or humiliation; andâ€¢libel, slander, defamation of character, or invasion of privacy.Bodily injury means physical bodily harm, including sickness or disease that results from it, and required care, loss of services and resulting death.Property damage means physical injury to or destruction of tangible property and the resulting loss of its use. Tangible property includes the cost of recreating or replacing stocks, bonds, deeds, mortgages, bank deposits, and similar instruments, but does not include the value represented by such instruments. Tangible property does not include the cost of recreating or replacing any software, data or other information that is in electronic form.Registered vehicle means any motorized land vehicle not described in "unregistered vehicle."Unregistered vehicle means:â€¢any motorized land vehicle not designed for or required to be registered for use on public roads;â€¢any motorized land vehicle which is in dead storage at your residence;â€¢any motorized land vehicle used solely on and to service your residence premises;â€¢any motorized land vehicle used to assist the disabled that is not designed for or required to be registered for use on public roads; orâ€¢golf carts.GROUP PERSONAL EXCESS COVERAGEThis part of your Group Personal Excess Liability Policy provides you or a family member with liability coverage in excess of your underlying insurance anywhere in the world unless stated otherwise or an exclusion applies.Payment for a LossAmount of coverageThe amount of coverage for liability is shown in the Coverage Summary. We will pay on your behalf up to that amount for covered damages from any one occurrence, regardless of how many claims, homes, vehicles, watercraft, or people are involved in the occurrence.Any costs we pay for legal expenses (see Defense coverages) are in addition to the amount of coverage.Underlying InsuranceWe will pay only for covered damages in excess of all underlying insurance covering those damages, even if the underlying coverage is for more than the minimum amount."Underlying insurance" includes all liability coverage that applies to the covered damages, except for other insurance purchased in excess of this policy.Required primary underlying insuranceRegardless of whatever other primary underlying insurance may be available in the event of a claim or loss, it is a condition of your policy that you and your family members must maintain in full effect primary underlying liability insurance of the types and in at least the amounts set forth below unless a different amount is shown in your Coverage Summary, covering your personal liability and to the extent you or a family member have such liability exposures, all vehicles and watercraft you or your family members own, or rent for longer than 60 days, or have furnished for longer than 60 days, as follows:Personal liability(homeowners) for personal injury and property damage in the minimum amount of \$300,000 each occurrence.Registered vehicles in the minimum amount of:â€¢\$250,000/\$500,000 bodily injury and \$100,000 property damage;â€¢\$300,000/\$300,000 bodily injury and \$100,000 property damage; orâ€¢\$300,000 single limit each occurrence.Unregistered vehicles in the minimum amount of \$300,000 bodily injury and property damage each occurrence. Registered vehicles with less than four wheels and motorhomes in the minimum amount of:â€¢\$250,000/\$500,000 bodily injury and \$100,000 property damage;â€¢\$300,000/\$300,000 bodily injury and \$100,000 property damage; orâ€¢\$300,000 single limit each occurrence.Watercraft less than 26 feet and 50 engine rated horsepower or less for bodily injury and property damage in the minimum amount of \$300,000 each occurrence.Watercraft 26 feet or longer or more than 50 engine rated horsepower for bodily injury and property damage in the minimum amount of \$500,000 each occurrence.Uninsured motorists/underinsure d motorist protection in the minimum amounts of:â€¢\$250,000/\$500,000 bodily injury and \$100,000 property damage;â€¢\$300,000/\$300,000 bodily injury and \$100,000 property damage; orâ€¢\$300,000 single limit each occurrence.With respect to you and your family members residing outside of the United States, the required primary underlying insurance limits of liability shall be the same limits of liability as shown above, unless you and your family members reside in a country where the minimum required primary underlying insurance limits of liability are not available. In these countries, you and your family members must maintain in full effect primary underlying liability insurance limits equal to the maximum limits of liability available in that country for all coverages up to the minimum required primary underlying limits shown in the Coverage Summary under Required Primary Underlying Insurance.Failure by you or your family members to comply with this condition, or failure of any of your primary underlying insurers due to insolvency or bankruptcy, shall not invalidate this policy. In the event of any such failure, we shall only be liable in excess of the foregoing minimum amounts and to no greater extent with respect to coverages, amounts and defense costs than we would have been had this failure not occurred.You must also give notice of losses and otherwise cooperate and comply with the terms and conditions of such primary underlying insurance.Group Personal Excess Liability CoverageWe cover damages a covered person is legally obligated to pay for bodily injury and property damage, caused by an occurrence:â€¢in excess of damages covered by the underlying insurance; orâ€¢from the first dollar of damage where no underlying insurance is required under this policy and no underlying insurance exists; orâ€¢from the first dollar of damage where underlying insurance is required under this policy but no coverage is provided by the underlying insurance for a particular occurrence;â€¢unless stated otherwise or an exclusion applies. Exclusions to this coverage are described in Exclusions. Excess uninsured motorists/underinsured motorist protectionThis coverage is in effect only if excess uninsured motorists/underinsure d motorists protection is shown in the Coverage Summary.We cover damages for bodily injury and property damage a covered person is legally entitled to receive from the owner or operator of an uninsured motorized/underinsured motorized land vehicle. We cover these damages in excess of the underlying insurance or the Required Primary Underlying Insurance, whichever is greater, if they are caused by an occurrence during the policy period, unless otherwise stated.Amount of coverage. The maximum amount of excess uninsured motorists/underinsure d motorists protection available for any one occurrence is the excess uninsured motorists/underinsure d motorists protection amount shown in the Coverage Summary regardless of the number of vehicles covered by the Required Primary Underlying Insurance. We will not pay more than this amount in any one occurrence for covered damages regardless of how many claims, vehicles or people are involved in the occurrence. This coverage will follow form.Uninsured motorists/underinsured motorists protection arbitrationIf we and a covered person disagree whether that person is legally entitled to recover damages from the owner or operator of an uninsured motor vehicle/underinsured motor vehicle, or do not agree as to the amount of damages, either party may make a written demand for arbitration. In this event, each party will select an arbitrator. The two arbitrators will select a third. If they cannot agree on a third arbitrator within 45 days, either may request that the arbitration be submitted to the American Arbitration Association. When the covered person's recovery exceeds the minimum limit specified in the applicable jurisdiction's financial responsibility law, each party will pay the expenses it incurs, and bear the expenses of the third arbitrator equally. Otherwise, we will bear all the expenses of the arbitration.Unless both parties agree otherwise, arbitration will take place in the county and state in which the covered person lives. Local rules of law as to procedure and evidence will apply. A decision agreed to by two arbitrators will be binding unless the recovery amount for bodily injury exceeds the minimum limit specified by the applicable jurisdiction's financial responsibility law. If the amount exceeds that limit, either party may demand the right to a trial. This demand must be made within 60 days of the arbitrator's decision. If this demand is not made, the amount of damages agreed to by the arbitrators will be binding.Uninsured/underinsured liability coverageThis coverage is in effect only if excess uninsured motorists/underinsured motorists protection is shown in the Coverage Summary.We cover up to a maximum of \$1 million for bodily injury and personal injury you or a family member are legally entitled to receive from an uninsured or underinsured negligent person caused by an occurrence, unless stated otherwise or an exclusion applies. We will not pay more than this amount for covered damages from any one occurrence, regardless of how many claims or people are involved in the occurrence. This coverage is excess over the total of any other collectible insurance that covers damages from the occurrence.All the exclusions under the Group Personal Excess Liability Coverage are applicable to this Uninsured/underinsured liability coverage, and where used, the definition of you or a family member is extended to include negligent person. This coverage also does not apply to damages from an occurrence arising out of any business activities; any activities involving business property or the sale or transfer of property; or the ownership, maintenance, use, loading, unloading, or towing of any motor vehicle, watercraft, or aircraft. In addition, this coverage does not apply to damages from an occurrence arising from any employment related harassment, termination, demotion, breach of an oral or written employment contract or agreement or violation of any state or federal wrongful employment practices act or similar law.We also do not cover any fines, penalties, taxes, punitive, exemplary or multiplied damages, or any claim or suit seeking nonA monetary relief, including but not limited to, injunctive relief, declaratory relief or other equitable remedies."Negligent person" means an identifiable natural person by legal name who is not a family member, and who is legally responsible for damages sustained by you or a family member caused by an occurrence.Duplication of coverage. We will not make a duplicate payment for any portion of damages for which payment has been made by or on behalf of persons who may be legally responsible, or otherwise covered by any other collectible insurance. Nor will we pay for any portion of damages if you or a family member is entitled to receive payment for the same portion of damages under any workers' compensation law, disability benefits law or similar law. Defense coveragesWe will defend a covered person against any suit seeking covered damages for personal injury or property damage that is either:â€¢not covered by any underlying insurance; orâ€¢covered by an underlying policy. This will apply to each Defense Coverage as it has been exhausted by payment of claims.We provide this defense at our expense, with counsel of our choice, even if the suit is groundless, false, or fraudulent. We may investigate, negotiate, and settle any such claim or suit at our discretion.As part of our investigation, defense, negotiation, or settlement, we will pay:â€¢all premiums on appeal bonds required in any suit we defend;â€¢all premiums on bonds to release attachments for any amount up to the amount of coverage (but we are not obligated to apply for or furnish any bond);â€¢all expenses incurred by us;â€¢all costs taxed against a covered person;â€¢all interest accruing after a judgment is entered in a suit we defend on only that part of the judgment we are responsible for paying. We will not pay interest accruing after we have paid the judgment up to the amount of coverage;â€¢all prejudgment interest awarded against a covered person on that part of the judgment we pay or offer to pay.We will not pay any prejudgment interest based on that period of time after we make an offer to pay the amount of coverage;â€¢all earnings lost by each covered person at our request, up to \$25,000;â€¢other reasonable expenses incurred by a covered person at our request; andâ€¢the cost of bail bonds required of a covered person because of a covered loss.In jurisdictions where we may be prevented by local law from carrying out these Defense Coverages, we will pay only those defense expenses that we agree in writing to pay and that are incurred by you.Extra CoveragesIn addition to covering damages and defense costs, we also provide other related coverages. These coverages are in addition to the amount of coverage for damages and defense costs unless stated otherwise.Shadow defense coverageIf we are defending you or a family member in a suit seeking covered damages, we will pay reasonable expenses you or a family member incur up to \$10,000 or the amount shown in the Coverage Summary for a law firm of your choice to review and monitor the defense. However any recommendation by your personal attorney is not binding on us. We will pay these costs provided that you obtain prior approval from us before incurring any fees or expenses.Identity fraudWe will pay for your or a family member's identity fraud expenses, up to a maximum of \$25,000, for each identity fraud occurrence."Identity fraud" means the act of knowingly transferring or using, without lawful authority, your or a family member's means of identity which constitutes a violation of federal law or a crime under any applicable state or local law."Identity fraud occurrence" means any act or series of acts of identity fraud by a person or group commencing in the policy period."Identity fraud expenses" means:â€¢the costs for notarizing affidavits or similar documents for law enforcement agencies, financial institutions or similar credit grantors, and credit agencies;â€¢the costs for sending certified mail to law enforcement agencies, financial institutions or similar credit grantors, and credit agencies;â€¢the loan application fees for reapplying for loan(s) due to the rejection of the original application because the lender received incorrect credit information;â€¢the telephone expenses for calls to businesses, law enforcement agencies, financial institutions or similar credit grantors, and credit agencies;â€¢earnings lost by you or a family member as a result of time off from work to complete fraud affidavits, meet with law enforcement agencies, credit agencies, merchants, or legal counsel;â€¢the reasonable attorney fees incurred with prior notice to us for:â€¢the defense of you or a family member against any suit(s) by businesses or their collection agencies;â€¢the removal of any criminal or civil judgements wrongly entered against you or a family member;â€¢any challenge to the information in your or a family member's consumer credit report; andâ€¢the reasonable fees incurred with prior notice to us by an identity fraud mitigation entity to:â€¢provide services for the activities described above;â€¢restore accounts or credit standing with financial institutions or similar credit grantors and credit agencies; andâ€¢monitor for up to one year the effectiveness of the fraud mitigation and to detect additional identity fraud activity after the first identify fraud occurrence.However, such monitoring must begin no later than one year after you or a family member first report an identity fraud occurrence to us.However, "identity fraud expenses" does not include expenses incurred due to any fraudulent, dishonest or criminal act by a covered person or any person acting with a covered person, or by any authorized representative of a covered person, whether acting alone or in collusion with others."Identity fraud mitigation entity" means a company that principally provides professional, specialized services to counter identity fraud for individuals or groups of individuals, or a financial institution that provides similar services.In addition to the duties described in Policy Terms, Liability Conditions, Your duties after a loss, you shall notify an applicable law enforcement agency.Kidnap expensesWe will pay up to a maximum of \$100,000 for kidnap expenses you or a family member incurs solely and directly as a result of a kidnap and ransom occurrence. In addition, we also will pay up to \$25,000 to any person for information not otherwise available leading to the arrest and conviction of any person(s) who kidnaps you, a family member or a covered relative. The following are not eligible to receive this reward payment:â€¢you or a family member; orâ€¢a covered relative who witnessed the occurrence."Kidnap and ransom occurrence" means the actual or alleged wrongful taking of:â€¢you;â€¢one or more family members; orâ€¢one or more covered relatives while visiting or legally traveling with you or a family member;â€¢from anywhere in the world except those places listed on the United States State Department Bureau of Consular Affairs Travel Warnings list at the time of the occurrence. The occurrence must include a demand for ransom payment which would be paid by you or a family member in exchange for the release of the kidnapped person(s)."Kidnap expenses" means the reasonable costs for:â€¢a professional negotiator;â€¢a professional security consultant;â€¢professional security guard services;â€¢a professional public relations consultant;â€¢travel, meals, |              |

lodging and phone expenses incurred by you or a family member; advertising, communications and recording equipment; related medical, cosmetic, psychiatric and dental expenses incurred by a kidnapped person within 12 months from that person's release; attorneys fees; a professional forensic analyst; earnings lost by you or a family member, up to \$25,000. However, "kidnap expenses" does not include expenses incurred due to any kidnap and ransom occurrence caused by you or a family member; a covered relative; any guardian, or former guardian of you, a family member or covered relative; any estranged spouse or domestic partner, or former spouse or domestic partner of you or a family member; any person unrelated to you or a family member who lives with you or a family member or has ever lived with you or a family member for 6 or more months, other than a domestic employee, residential staff, or a person employed by you or a family member for farm work; a civil authority, or any person acting on behalf of any of the above, whether acting alone or in collusion with others. "Covered relative" means the following relatives of you, or a spouse or domestic partner who lives with you, or any family member: children, their children or other descendants of theirs; parents, grandparents or other ancestors of theirs; siblings, their children or other descendants of theirs; who do not live with you, including spouses or domestic partners of all of the above. Parents, grandparents and other ancestors include adoptive parents, stepparents and stepgrandparents. Reputational injury. If we are defending you or a family member in a suit seeking covered damages, we will pay reasonable and necessary fees or expenses that you or a family member incur for services provided by a reputation management firm to minimize potential injury to the reputation of you or a family member solely as a result of personal injury or property damage, caused by an occurrence if the reputational injury is reported to us as soon as reasonably possible but not later than 30 days after the personal injury or property damage occurrence; and you obtain approval of the reputation management firm from us before incurring any fees or expenses, unless stated otherwise or an exclusion applies. There is no deductible for this coverage. A Reputation management firm means a professional public relations consulting firm, a professional security consulting firm or a professional media management consulting firm. The maximum amount of coverage for Reputational injury available for any one occurrence is \$25,000 or the amount shown in the Coverage Summary. We will not pay more than this amount in any one occurrence for covered damages regardless of how many claims or people are involved in the occurrence. The maximum annual amount of coverage for Reputational injury shown in the Coverage Summary is the most we will pay for the sum of all covered damages you or a family member incur during the policy period regardless of the number of claims, people, or occurrences. This coverage does not apply to loss caused by a wrongful employment act covered by Employment Practices Liability Insurance. Exclusions These exclusions apply to your Group Personal Excess Liability Coverage, unless stated otherwise. Aircraft. We do not cover any damages arising out of the ownership, maintenance, use, loading, unloading, or towing of any aircraft, except aircraft chartered with crew by you. We do not cover any property damages to aircraft rented to, owned by, or in the care, custody or control of a covered person. Hovercraft. We do not cover any damages arising out of the ownership, maintenance, use, loading, unloading or towing of any hovercraft. We do not cover any property damages to hovercraft rented to, owned by, or in the care, custody or control of a covered person. Motorized land vehicle racing or track usage. We do not cover any damages arising out of the ownership, maintenance or use of any motorized land vehicle: during any instruction, practice, preparation for, or participation in, any competitive, prearranged or organized racing, speed contest, rally, gymkhana, sports event, stunting activity, or timed event of any kind; on a racetrack, test track or other course of any kind. Watercraft and aircraft racing or track usage. We do not cover any damages arising out of the ownership, maintenance or use of any watercraft or aircraft during any instruction, practice, preparation for, or participation in, any competitive, prearranged or organized racing, speed contest, rally, sports event, stunting activity or timed event of any kind. This exclusion does not apply to you or a family member for sailboat racing even if the sailboat is equipped with an auxiliary motor. Motorized land vehicle-related jobs. We do not cover any damages arising out of the ownership, maintenance, or use of a motorized land vehicle by any person who is employed or otherwise engaged in the business of selling, repairing, servicing, storing, parking, testing, or delivering motorized land vehicles. This exclusion does not apply to you, a family member, or your employee or an employee of a family member for damages arising out of the ownership, maintenance or use of a motorized land vehicle owned by, rented to, or furnished to you or a family member. Watercraft related jobs. We do not cover any damages arising out of the ownership, maintenance, or use of a watercraft by any person who is engaged by or employed by, or is operating a marina, boat repair yard, shipyard, yacht club, boat sales agency, boat service station, or other similar organization. This exclusion does not apply to damages arising out of the ownership, maintenance, or use of a watercraft by you, a family member, or your or a family member's captain or full time paid crew member maintaining or using this watercraft with permission from you or a family member. Motorized land vehicle and watercraft loading. We do not cover any person or organization, other than you or a family member or your or a family member's employees, with respect to the loading or unloading of motorized land vehicles or watercraft. Workers' compensation or disability. We do not cover any damages a covered person is legally required to provide; voluntarily provides under any workers' compensation; disability benefits; unemployment compensation; or other similar laws. But we do provide coverage in excess over any other insurance for damages you or a family member is legally required to pay for bodily injury to a domestic employee of a residence covered under the Required Primary Underlying Insurance which are not compensable under workers' compensation, unless another exclusion applies. Director's liability. We do not cover any damages for any covered person's actions or failure to act as an officer or member of a board of directors of any corporation or organization. However, we do cover such damages if you are or a family member is an officer or member of a board of directors of a homeowner, condominium or cooperative association; not for profit corporation or organization for which he or she is not compensated; unless another exclusion applies. Damage to covered person's property. We do not cover any person for property damage to property owned by any covered person. Damage to property in your care. We do not cover any person for property damage to property rented to, occupied by, used by, or in the care of any covered person, to the extent that the covered person is required by contract to provide insurance. But we do cover such damages for loss caused by fire, smoke, or explosion unless another exclusion applies. Wrongful employment act. We do not cover any damages arising out of a wrongful employment act. A wrongful employment act means any employment discrimination, sexual harassment, or wrongful termination of any residential staff actually or allegedly committed or attempted by a covered person while acting in the capacity as an employer, that violates applicable employment law of any federal, state, or local statute, regulation, ordinance, or common law of the United States of America, its territories or possessions, or Puerto Rico. Employment discrimination as it relates solely to a wrongful employment act means a violation of applicable employment discrimination law protecting any residential staff based on his or her race, color, religion, creed, age, sex, disability, national origin or other status according to any federal, state, or local statute, regulation, ordinance, or common law of the United States of America, its territories or possessions, or Puerto Rico. Sexual harassment as it relates solely to a wrongful employment act means unwelcome sexual advances, requests for sexual favors, or other conduct of a sexual nature that is made a condition of employment of any residential staff; is used as a basis for employment decisions; interferes with performance of any residential staff's duties; creates an intimidating, hostile, or offensive working environment. Wrongful termination as it relates solely to a wrongful employment act means the actual or constructive termination of employment of any residential staff by you or a family member in violation of applicable employment law; breach of duty and care when you or a family member terminates an employment relationship with any residential staff. Residential staff as it relates solely to a wrongful employment act means you or a family member's employee who is employed by you or a family member, or through a firm under an agreement with you or a family member, to perform duties related only to a covered person's domestic, personal, or business pursuits covered under this part of your policy; compensated for labor or services directed by you or a family member; and employed regularly to work 15 or more hours per week. Residential staff includes a temporary worker. Residential staff does not include an independent contractor or any covered person. Temporary worker as it relates solely to a wrongful employment act means your or a family member's employee who is employed by you or a family member, or through a firm under an agreement with you or a family member, to perform duties related only to a covered person's domestic, personal, or business pursuits covered under this part of your policy; compensated for labor or services directed by you or a family member; and employed to work 15 or more hours per week to substitute for any residential staff on leave or to meet seasonal or short-term workload demands for 30 consecutive days or longer during a 6-month period. Temporary worker does not include an independent contractor or any covered person. Discrimination. We do not cover any damages arising out of discrimination due to age, race, color, sex, creed, national origin, or any other discrimination. Intentional acts. We do not cover any damages arising out of a willful, malicious, fraudulent or dishonest act or any act intended by any covered person to cause personal injury or property damage, even if the injury or damage is of a different degree or type than actually intended or expected. But we do cover such damages if the act was intended to protect people or property unless another exclusion applies. An intentional act is one whose consequences could have been foreseen by a reasonable person. Molestation, misconduct or abuse. We do not cover any damages arising out of any actual, alleged or threatened sexual molestation; sexual misconduct or harassment; abuse. Nonpermissive use. We do not cover any person who uses a motorized land vehicle or watercraft without permission from you or a family member. Business pursuits. We do not cover any damages arising out of a covered person's business pursuits, investment or other for-profit activities, for the account of a covered person or others, or business property except on a follow form basis. But we do cover damages arising out of volunteer work for an organized charitable, religious or community group, an incidental business away from home, incidental business at home, incidental business property, incidental farming, or residence premises conditional business liability unless another exclusion applies. We also cover damages arising out of your or a family member's ownership, maintenance, or use of a private passenger motor vehicle in business activities other than selling, repairing, servicing, storing, parking, testing, or delivering motorized land vehicles. Unless stated otherwise in your Coverage Summary: "Incidental business away from home" is a self-employed sales activity, or a self-employed business activity normally undertaken by person under the age of 18 such as newspaper delivery, babysitting, caddying, and lawn care. Either of these activities must not yield gross revenues in excess of \$15,000 in any year; have no employees subject to worker's compensation or other similar disability laws; conform to local, state, and federal laws. "Incidental business at home" is a business activity, other than farming, conducted on your residence premises which must not yield gross revenues in excess of \$15,000, in any year, except for the business activity of managing one's own personal investments; have no employees subject to worker's compensation or other similar disability laws; conform to local, state, and federal laws. "Incidental business property" is limited to the rental or holding for rental, to be used as a residence, of a condominium or cooperative unit owned by you or a family member, an apartment unit rented to you or a family member, a one or two family dwelling owned by you or a family member, or a three or four family dwelling owned and occupied by you or a family member. We provide this coverage only for premises covered under the Required Primary Underlying Insurance unless the rental or holding for rental is for: a residence of yours or a family member's that is occasionally rented and that is used exclusively as a residence; a part of a residence of yours or a family member's by one or two roomers or boarders; a part of a residence of yours or a family member's as an office, school, studio, or private garage. "Incidental farming" is a farming activity which meets all of the following requirements: is incidental to your or a family member's use of the premises as a residence; does not involve employment of others for more than 1,500 hours of farm work during the policy period; does not produce more than \$25,000 in gross annual revenue from agricultural operations; and with respect to the raising or care of animals: does not produce more than \$50,000 in gross annual revenues; does not involve more than 25 sales transactions during the policy period; does not involve the sale of more than 50 animals during the policy period. "Residence premises conditional business liability" is limited to business or professional activities when legally conducted by you or a family member at your residence. We provide coverage only for personal injury or property damage arising out of the physical condition of that residence if: you or a family member do not have any employees involved in your business or professional activities who are subject to workers' compensation or other similar disability laws; or, if you or a family member are a doctor or dentist, you do not have more than two employees subject to such laws; you or a family member do not earn annual gross revenues in excess of \$5,000, if you or a family member are a home day care provider. We do not cover damages or consequences resulting from business or professional care or services performed or not performed. The following additional exclusion applies only to "incidental farming" as described under the exclusion, Business pursuits. Contamination. We do not cover any actual or alleged damages arising out of the discharge, dispersal, seepage, migration or release or escape of pollutants. Nor do we cover any cost or expense arising out of any request, demand or order to: extract pollutants from land or water; remove, restore or replace polluted or contaminated land or water; test for, monitor, clean up, remove, contain, treat, detoxify or neutralize pollutants, or in any way respond to or assess the effects of pollutants. However, this exclusion does not apply if the discharge, dispersal, seepage, migration, release or escape is sudden and accidental. A "pollutant" is any solid, liquid, gaseous or thermal irritant or contaminant, including smoke (except smoke from a hostile fire), vapor, soot, fumes, acids, alkalis, chemicals and waste. A "contaminant" is an impurity resulting from the mixture or contact of a substance with a foreign substance. "Waste" includes materials to be disposed of, recycled, reconditioned or reclaimed. Financial guarantees. We do not cover any damages for any covered person's financial guarantee of the financial performance of any covered person, other individual or organization. Professional services. We do not cover any damages for any covered person's performing or failure to perform professional services, or for professional services for which any covered person is legally responsible or licensed. Acts of war. We do not cover any damages caused directly or indirectly by war, undeclared war, civil war, insurrection, rebellion, revolution, warlike acts by military forces or personnel, the destruction or seizure of property for a military purpose, or the consequences of any of these actions. Contractual liability. We do not cover any assessments charged against a covered person as a member of a homeowners, condominium or cooperative association. We also do not cover any damages arising from contracts or agreements made in connection with any covered person's business. Nor do we cover any liability for unwritten contracts, or contracts in which the liability of others is assumed after a covered loss. Covered person's or dependent's personal injury. We do not cover any damages for personal injury for any covered person or their dependents where the ultimate beneficiary is the offending party or defendant. We also do not cover any damages for personal injury for which you can be held legally liable, in any way, to a family member, your spouse or domestic partner or for which a family member, your spouse or domestic partner can be held legally liable, in any way, to you. However, we do cover damages for bodily injury arising out of the use of a motorized land vehicle for which you can be held legally liable to a family member, your spouse or domestic partner or for which a family member, your spouse or domestic partner can be held legally liable to you to the extent that coverage is provided under this policy. This coverage applies only to the extent such damages are covered by primary underlying insurance and exceed the limits of insurance required for that motorized land vehicle under the Required Primary Underlying Insurance provisions of this policy. Liability for dependent care. We do not cover any damages for personal injury for which a covered person's only legal liability is by virtue of a contract or other responsibility for a dependent's care. Illness. We do not cover personal injury or property damage resulting from any illness, sickness or disease transmitted intentionally or unintentionally by a covered person to anyone, or any consequence resulting from that illness, sickness or disease. We also do not cover any damages for personal injury resulting from the fear of contracting any illness, sickness or disease, or any consequence resulting from the fear of contracting any illness, sickness or disease. Fungi and mold. We do not cover any actual or alleged damages or medical expenses arising out of mold, the fear of mold, or any consequences resulting from mold or the fear of mold. "Mold" means fungi, mold, mold spores, mycotoxins, and the scents and other byproducts of any of these. Nuclear or radiation hazard. We do not cover any damages caused directly or indirectly by nuclear reaction, radiation, or radioactive contamination, regardless of how it was caused. POLICY TERM This part of your Group Personal Excess Liability Policy explains the conditions that apply to your policy. General Conditions These conditions apply to your policy in general, and to each coverage provided in the policy. Policy period The effective dates of your policy are shown in the Coverage Summary. Those dates begin at 12:01 a.m. standard time at the mailing address shown. All coverages on this policy apply only to occurrences that take place while this policy is in effect. Transfer of rights If we make a payment under this policy, we will assume any recovery rights a covered person has in connection with that loss, to the extent we have paid for the loss. All of your rights of recovery will become our rights to the extent of any payment we make under this policy. A covered person will do everything necessary to secure such rights; and do nothing after a loss to prejudice such rights. However, you may waive any rights of recovery from another person or organization for a covered loss in writing before the loss occurs. Concealment or fraud We do not provide coverage if you or any covered person has intentionally concealed or misrepresented any material fact relating to this policy before or after a loss. Application of coverage Coverage applies separately to each covered person. However, this provision does not increase the amount of coverage for any one occurrence. Assignment You cannot transfer your interest in this policy to anyone else unless we agree in writing to the transfer. Policy changes This policy can be changed only by a written amendment we issue. Bankruptcy or insolvency We will meet all our obligations under this policy regardless of whether you, your estate, or anyone else or their estate becomes bankrupt or insolvent. In case of death In the event of your death, coverage will be provided until the end of the policy period or policy anniversary date, whichever occurs first, for any surviving member of your household who is a covered person at the time of death. We will also cover your legal representative or any person having proper temporary custody of your property. Liberalization We may extend or broaden the coverage provided by this policy. If we do this during the policy period or within 60 days before it begins, without increasing the premium, then the extended or broadened coverage will apply to

occurrences after the effective date of the extended or broadened coverage.Conforming to state lawIf any provision of this policy conflicts with any applicable laws of the state you live in, this policy is amended to conform to those laws.Conforming to trade sanction lawsThis policy does not apply to the extent that trade or economic sanctions or other laws or regulations prohibit us from providing insurance.Liability ConditionsThese conditions apply to all liability coverages in this policy.Other InsuranceThis insurance is excess over any other insurance except for those policies that are written specifically to cover excess over the amount of coverage that applies in this policy; and schedule this policy as underlying insurance.Your duties after a lossIn case of an accident or occurrence, the covered person shall perform the following duties that apply:Notification. You must notify us or your agent or broker as soon as possible.Assistance. You must provide us with all available information. This includes any suit papers or other documents which help us in the event that we defend you.Cooperation. You must cooperate with us fully in any legal defense. This may include any association by us with the covered person in defense of a claim reasonably likely to involve us.Examination. A person making a claim under this policy must submit as often as we reasonably require:to physical exams by physicians we select, which we will pay for; and to examination under oath and subscribe the same; and authorize us to obtain:medical reports; and other pertinent records.AppealsIf a covered person, or any primary insurer, does not appeal a judgment for covered damages, we may choose to do so. We will then become responsible for all expenses, taxable costs, and interest arising out of the appeal. However, the amount of coverage for damages will not be increased.Special ConditionsIn the event of conflict with any other conditions of your policy, these conditions supersede.Legal action against usYou agree not to bring action against us unless you have first complied with all conditions of this policy.You also agree not to bring any action against us until the amount of damages you are legally obligated to pay has been finally determined after an actual trial or appeal, if any, or by a written agreement between you, us and the claimant. No person or organization has any right under this policy to bring us into any action to determine the liability of a covered person.Notice of cancellation and coverage termination conditionsThe Sponsoring Organization may cancel this policy by returning it to us or notifying us in writing at any time subject to the following:the Sponsoring Organization must notify us in advance of the requested cancellation date; and the Sponsoring Organization must provide proof of notification to each member of the Defined Group covered under this policy.We may cancel this policy or any part of it subject to the following conditions. Our right to cancel applies to each coverage or limit in this policy. In the event we cancel this policy, we are under no obligation to provide you with an opportunity to purchase equivalent coverage.Within 60 days. When this policy or any part of it has been in effect for less than 60 days, we may cancel with 30 days notice for any reason.Non payment of premium. We may cancel this policy or any part of it with 10 days notice if the Sponsoring Organization or you fail to pay the premium by the due date, regardless of whether the premium is payable to us, to our agent, or under any financial credit.Misrepresentation. We may cancel this policy or any part of it with 30 days notice if the coverage was obtained through misrepresentation, fraudulent statements, or omissions or concealment of a fact that is relevant to the acceptance of the risk or to the hazard we assumed.Increase in hazard. We may cancel this policy or any part of it with 30 days notice if there has been a substantial change in the risk which increases the chance of loss after insurance coverage has been issued or renewed, including but not limited to an increase in exposure due to rules, legislation, or court decision.Procedure. To cancel this policy or any part of it, we must notify you in writing. This notice will be mailed to the Sponsoring Organization at the mailing address shown in the Coverage Summary and we will obtain a certificate of mailing. This notice will include the date the cancellation is to take effect.Termination. Should an individual for any reason no longer qualify as a member of the Defined Group, coverage will cease sixty (60) days from the date that individual no longer qualifies as a member of the Defined Group, or the policy expiration or cancellation date, whichever comes first.Refund. In the event of cancellation by the Sponsoring Organization or us, we will refund any unearned premium on the effective date of cancellation, or as soon as possible afterwards to the Sponsoring Organization. The unearned premium will be computed short rate for the unexpired term of the policy. EX-19 4 noc-12312024xex19.htm INSIDER TRADING POLICY DocumentExhibit 19Company PolicyPolicy NumberCP L4SubjectInsider Trading PolicyEffective Date4/2/2024Page1 of 3Process OwnerA A A Corporate Vice President and General CounselSupersedesA A A CP L4, Insider Trading Policy, dated 11/14/2023PolicyIt is the policy of Northrop Grumman Corporation that all officers, directors, and employees of Northrop Grumman Corporation and its subsidiaries (collectively, "Designated Persons") will act in full compliance with all applicable securities laws and avoid even the appearance of improper trading. Under the United States federal securities laws, it is unlawful for a person to improperly buy or sell a company's securities on the basis of material, nonpublic information.This policy is intended to prevent insider trading and help all Covered Persons to comply fully with all legal requirements and their obligations to the company.A Covered Person who fails to comply with this policy shall be subject to company disciplinary action, up to and including discharge, whether or not the failure to comply results in a violation of the law. Persons who violate the federal securities laws face severe penalties, including fines and imprisonment.ImplementationCovered Persons may not improperly buy or sell Northrop Grumman Corporation stock or other Northrop Grumman Corporation securities (defined as "NGC stock" or "other NGC securities") on the basis of material, nonpublic information. In broad terms, a purchase or sale of stock or other securities is "on the basis of" material, nonpublic information if the person making the purchase or sale was aware of the material, nonpublic information when the person made the purchase or sale.It may not matter that the information is not "used" in deciding to make a trade; simply knowing, or being aware of, the information when trading can be sufficient to violate this policy. Covered Persons must also avoid disclosing this type of information to a third party (often referred to as "tipping") where such third party may misuse that information, such as by purchasing or selling NGC stock or other NGC securities, or tipping that information to others (even though the disclosing person does not engage in any securities transaction or profit from the third party's trade).Prohibition Against Insider Trading and TippingWhile aware of company material, nonpublic information, Covered Persons may not: A A Engage in any purchase or sale of NGC securities (other than pursuant to an approved 10b5-1 Plan); A A Recommend that others buy or sell NGC securities; or A A Disclose such information to others who do not have a legitimate company-related need for the information.These prohibitions also apply to the securities of, and information regarding, a customer or supplier of the company or of any other company about which the Covered Person possesses material, nonpublic information as a result of his or her relationship with the company.Covered Persons should not trade in NGC stock or other NGC securities or securities of other companies about which the person possesses material, nonpublic information until such information becomes public or is no longer material. The prohibitions under this policy continue to apply to transactions after a Covered Person's relationship with the company terminates.Identifying Material, Nonpublic InformationMaterial, nonpublic information generally includes information that:1) A A a reasonable investor would consider important in deciding whether to purchase, sell, or hold NGC stock or other NGC securities, as applicable, and2) A A has not been distributed in a manner making it available to investors generally. In other words, information that could reasonably affect the price of a security, either favorably or unfavorably, is generally material information. Information is nonpublic unless it is in general circulation (whether via a press release, disclosure in a document filed with the Securities and Exchange Commission (SEC), through a public webcast or otherwise) for a reasonable period of time to allow the market sufficient time to react to the information.Examples of material, nonpublic information can include, but are not limited to, the following: A A Earnings information, including projections and guidance; A A Significant business or operation matters, including regarding the company's customers, products, contracts, or strategic plans; A A Pending or proposed merger, acquisition, disposition, tender offer, or similar activity; A A Changes in management, including members of the company's Board of Directors or senior executives; A A A Significant legal proceedings or regulatory matters, whether actual, pending or threatened, or the resolution of those proceedings or matters; A A A Significant compliance, cyber security, or other adverse event; and A A A Information about significant misstatements or omissions in the company's disclosure documents, whether intentional or inadvertent.Material, nonpublic information may be either positive or negative, and it may consist of information about the company, a customer, a supplier, or another company that is confidential and obtained in the course of an individual's employment with the company. The above list is intended to be for illustrative purposes only and is by no means an exhaustive list of "material, nonpublic" information for purposes of this policy.The "materiality" of information is often viewed with "20-20 hindsight," meaning the SEC, courts, and others are often influenced by subsequent events or developments when determining whether information was material at the time of a trade. Before engaging in any securities transaction, individuals should consider carefully how the SEC, courts, and others might view such transaction in hindsight when a possible positive or negative development has actually materialized. When in doubt, Covered Persons should seek guidance from the Corporate Vice President and Secretary.Transactions by Family Members and Controlled EntitiesThe restrictions set forth in this policy, including those regulating trading while aware of material, nonpublic information, apply to a Covered Person's immediate family members living in the Covered Person's household and others living in the Covered Person's household. Covered Persons should not discuss or disclose nonpublic information about or relating to the company with any family members. These restrictions also apply to any entity over which the Covered Person or such family members and other household members exercise or share investment control, such as a partnership or trust. Covered Persons are personally responsible for ensuring that family members as well as others living in their household comply with this policy.Duty to Report ViolationsAny Covered Person that becomes aware of what they believe may be an unauthorized disclosure of material, nonpublic information, or securities transaction potentially in violation of this policy, should report the unauthorized disclosure or violation immediately to the Corporate Vice President and Secretary.AuthorizationThis policy was authorized by the Process Owner as of the Effective Date. It is applicable to Northrop Grumman Corporation and its wholly owned subsidiaries; to all employees, officers, and directors of any of them; and to others as appropriate.This policy shall be periodically reviewed (typically at least every three (3) years) to maintain currency and applicability to the company's business and to respond to changes in legal, regulatory, or other requirements. Any deviations or exceptions to this policy must be approved in writing by the Process Owner.Violations of this policy may result in disciplinary action up to and including discharge.Company ProcedureProcedure NumberCO L400SubjectSecurities Trading for Designated PersonsEffective Date4/2/2024Page1 of 5Process OwnerA A A Corporate Vice President and SecretarySupersedesA A A CO L400, Securities Trading for Designated Persons, dated 2/3/2023Purpose/ IntroductionThis company procedure sets forth the process and procedures by which officers of the company, members of the Board of Directors, and certain other designated employees (collectively, "Designated Persons") may trade in Northrop Grumman Corporation stock or other Northrop Grumman Corporation securities (defined herein as "NGC stock" or "other NGC securities"). This Procedure is intended to help ensure that the company and its officers, directors and employees do not violate the United States federal securities laws, which make it unlawful for a person improperly to buy or sell a company's securities on the basis of material, nonpublic information.RequirementsGeneral RulesDesignated Persons are required to follow additional trading and pre-clearance procedures in order to trade in NGC stock or other NGC securities. The requirements set forth in this procedure applicable to Designated Persons also apply to any immediate family members and other persons living in the household of a Designated Person and all entities over which such persons exercise or share investment control.In addition to officers and directors, other employees designated by the Corporate Vice President and Secretary as Designated Persons include generally, but are not limited to, employees who (a) routinely have access to substantive information about the company's earnings and financial results prior to the release of the company's annual or quarterly earnings, (b) are routinely involved in the preparation of the company's earnings releases and quarterly and annual Securities and Exchange Commission (SEC) filings, or (c) are involved in certain confidential projects, such as significant strategy discussions, acquisitions, or divestitures. The Corporate Vice President and Secretary will notify such other individuals in writing of their status as Designated Persons on a quarterly basis or more frequently as appropriate.Trading During Open Window PeriodsDesignated Persons are prohibited from trading in NGC stock or other NGC securities other than (1) during an open window period (as described below) and (2) after receiving written approval from the Corporate Vice President and Secretary, or the Corporate Vice President and Secretary's designee, pursuant to the pre-clearance procedures, unless the transaction is exempt from the pre-clearance requirements as provided in the "Exemptions from Pre-Clearance Procedures" section below.The Corporate Vice President and Secretary will provide written notice when an open window period will begin and end, and specific instructions for trading during the period, including the process for engaging with the Stock Plan Administrator. Typically (but not always) open window periods begin on the second full business day after the company files its annual report on Form 10-K or quarterly report on Form 10-Q with the SEC, as applicable, and extend to the end of the date that is 21 days prior to the end of each fiscal quarter.The Corporate Vice President and Secretary will send advance written notice regarding the closure of the open window period.In the fourth quarter, elected officers, all other Vice Presidents who report directly to the Chief Executive Officer and certain individuals who are significantly involved in annual financial planning or who otherwise have significant visibility into year-end financial results and strategic planning will be subject to a shorter open window period (such persons, "Year-End Designated Persons"). That window will begin on the same date that the window opens generally for Designated Persons in the fourth quarter, but will end one week later, unless otherwise modified by the Corporate Vice President and Secretary. The Corporate Vice President and Secretary will typically notify Year-End Designated Persons in the first quarter of their status as Year-End Designated Persons and provide written notice regarding the closure of the shorter open window period for Year-End Designated Persons.All time periods outside of an open window period are "blackout periods" during which Designated Persons may not purchase, sell, or transfer NGC securities, other than as provided in the "Exemptions from Pre-Clearance Procedures" section of this policy.In addition, the company's management may, at any time, impose other trading restrictions on certain officers, directors, or employees, including if they anticipate a material event that is reasonably expected to impact the price of NGC securities, e.g., a material financial development, merger, or acquisition. As a result, officers, directors, and employees may from time to time be required to sign acknowledgments of and abide by trading restrictions in addition to those set forth specifically in this procedure.Pre-clearance ProceduresDesignated Persons seeking approval to engage in any transaction in NGC stock or other NGC securities must request approval by submitting a trading request form (Form C-845, Permission to Engage in Transactions Involving Northrop Grumman Securities) to the Corporate Vice President and Secretary, unless the transaction is exempt from the pre-clearance requirements as provided in the "Exemptions from Pre-Clearance Procedures" section below.The company is not obligated to approve any requested trades or to do so within a certain time period. The fact that clearance may be granted under this procedure does not release any individual from his or her obligation to ensure that they trade in full compliance with Company Policy (CP) L4, Insider Trading Policy, this procedure, and any applicable laws.Designated Persons should contact the Corporate Vice President and Secretary at least three business days before they intend to engage in any transaction to allow enough time for completion of the pre-clearance procedures. These pre-clearance procedures are also applicable to transfers of stock from the administrator of the stock plans (Fidelity or others) to another brokerage or trust, including between Fidelity accounts, and charitable donations of stock.After receiving written approval from the Corporate Vice President and Secretary through the pre-clearance procedure, a Designated Person may purchase, sell or transfer NGC stock or other NGC securities during an "open window period" for the time period indicated in the approval notification (not to exceed three business days), provided he or she is not aware of material, nonpublic information. A pre-cleared trade (or any portion of a pre-cleared trade) that has not been affected during the three business day period must be pre-cleared again prior to execution. Notwithstanding receipt of pre-clearance, if the Designated Person who has received pre-clearance becomes aware of material, nonpublic information or an open window period closes before the transaction is affected, the transaction may not be completed.The Corporate Vice President and Secretary will provide other details of the procedures to Designated Persons on a quarterly basis. The pre-clearance procedures are subject to change.Exemptions from Pre-clearance ProceduresCertain transactions in NGC stock or other NGC securities are exempt from the pre-clearance procedures. Designated Persons are not required to obtain approval from the Corporate Vice President and Secretary to engage in the following transactions: A A A Automatic transfer of funds into an NGC stock fund held as an investment in the company's savings plan and the increase or decrease of overall contributions to the savings plan; provided, however, that prior written approval through the pre-clearance procedure is required to: (1) establish the stock fund as an investment option under the savings plan or (2) increase or decrease the level of contributions to the stock fund in the savings plan; A A Ongoing purchase of NGC stock or other NGC securities under the company's dividend reinvestment plan ("DRP") resulting from reinvesting dividends paid on NGC securities; provided, however, that prior written approval through the pre-clearance procedure is required to establish the DRP; and A A Trades pursuant to an already approved and established Rule 10b-5 Plan (as defined and further discussed below).Trading Through Stock Plan AdministratorIn general, Designated Persons must execute all trades in NGC stock through the company's Stock Plan Administrator. The Office of the Corporate Vice President and Secretary shall maintain procedures with the Stock Plan Administrator to provide for the approval and execution of such trades, and trades may not be executed without complying with these procedures.At a minimum, the procedures will provide for the Stock Plan Administrator to obtain written notification of approval to complete the transaction prior to executing any transactions for Designated Persons, other than transactions exempted under the "Exemptions from Pre-Clearance Procedures" section above.Pre-Clearance ProcessEach responsible function/role must complete the steps below consistent with the requirements of this procedure.StepResponsible Function/RoleRequired Action1. Corporate Vice President and Secretary (or designee)Notify Designated Persons on quarterly basis of their status as a Designated



the opening / closing of the window period (if any) and the process for receiving approval of any request to trade in NGC stock or other NGC securities.2.Designated PersonIf a Designated Person wants to engage in a transaction with respect to NGC stock or other NGC securities (other than a transaction that is exempt from the pre-clearance procedures), complete the trade request form (Form C-845) and send the completed form to the Office of the Corporate Secretary for approval at StockTradeRequest@ngc.com at least three business days before he or she would like to engage in the transaction.3.Corporate Vice President and Secretary (or designee)Review the submitted trade request and, if approved, notify the Designated Person of such approval and the time period (up to three business days) for which the Designated Person may complete the transaction.The company's stock plan administrator (if applicable) will be notified of such approval and the time period for which the Designated Person may complete the transaction.4.Designated PersonFollowing receipt of approval to complete the transaction (if applicable), the Designated Person will have up to the time period specified in the approval notification to complete the transaction.Designated Persons that are Section 16 officers should notify the Corporate Vice President and Secretary once any approved transaction has been completed.Prearranged Trading Plans (Rule 10b5-1 Plans)Designated Persons may enter into a written plan, contract, or arrangement meeting the requirements of SEC Rule 10b5-1 (a "Rule 10b5-1 Plan") under the Exchange Act. An individual may enter into, modify, or terminate a Rule 10b5-1 Plan only during an open window, at a time when the individual is not aware of any material, nonpublic information, and after receiving written approval from the Corporate Vice President and Secretary, or the Corporate Vice President and Secretary's designee, pursuant to the pre-approval process set forth above.Elected officers and other Vice Presidents who report directly to the Chief Executive Officer are generally required to enter into a Rule 10b5-1 Plan in order to trade in NGC securities, unless otherwise prohibited from entering into such plan. However, elected officers and such other Vice Presidents may also, at a time when such officer is not aware of any material, nonpublic information, in good faith and not as part of a plan or scheme to evade compliance with the U.S. securities laws and after receiving written approval from the Corporate Vice President and Secretary, or the Corporate Vice President and Secretary's designee, pursuant to the pre-approval process set forth above and with respect to securities not the subject of an active Rule 10b5-1 Plan.Â A Trade during the open window period in the first quarter;Â A Make charitable contributions during any open window period; andÂ A Transfer shares of NGC stock to a trust during any open window period.The Rule 10b5-1 Plan will be effective no earlier than the beginning of the quarter after establishment of the Rule 10b5-1 Plan and the trading schedule under such Rule 10b5-1 Plan cannot commence (i) for elected officers and other Vice Presidents reporting directly to the Chief Executive Officer, until the later of (x) or 90 days after the adoption of the Rule 10b5-1 Plan and (y) two business days following the company's filing of its Form 10-Q or Form 10-K for the quarter in which the Rule 10b5-1 Plan was adopted and (ii) for all other Designated Persons, until the first day of the next open window period.While a Rule 10b5-1 Plan is in effect, Designated Persons may not (i) have overlapping Rule 10b5-1 Plans in effect, providing for trades executing under more than one plan at any time (unless within an applicable exception under Rule 10b5-1(c)(1)(ii)(D) under the Securities Exchange Act) or (ii) enter into any corresponding or hedging transactions or positions with respect to the NGC securities subject to the Rule 10b5-1 Plan. In addition, the Designated Person may not enter into more than one single-trade Rule 10b5-1 Plan in any 12-month period.Anyone entering into a Rule 10b5-1 Plan must also comply with all Rule 10b5-1 Plan requirements adopted by the company.Additional Prohibited TransactionsDesignated Persons are prohibited from:Â A Entering into any margin transaction involving NGC stock;Â A Trading in puts, calls, options, warrants or other similar derivative instruments involving NGC securities;Â A Engaging in short sales of NGC securities;Â A Engaging in hedging or derivative transactions, such as cashless collars, forward contracts, equity swaps or other similar or related transactions; orÂ A Pledging their NGC securities as collateral for loans or other transaction.Section 16 OfficersDirectors and certain elected officers (collectively "Section 16 officers") are subject to Section 16 of the Exchange Act and are reminded of their reporting obligations to file Form 3s, 4s and 5s and their possible liability to the company for "short-swing profits" as a result of transactions in shares of the company's stock, including options. This includes NGC securities that the Section 16 officer directly or indirectly acquires, including through a holding company, or over which the Section 16 officer exercises control or direction, including shares acquired by a partnership or trust that the Section 16 officer controls. Each Section 16 officer shall notify the Corporate Vice President and Secretary of the occurrence of any purchase, sale or other acquisition or disposition of NGC securities as soon as possible following the transaction, but in any event within one business day after the transaction. Such notification may be oral or in writing (including by e-mail) and should include the identity of the covered person, the type of transaction, the date of the transaction, the number of shares involved and the purchase or sale price.ReferencesCP L4, Insider Trading-C-845, Permission to Engage In Transactions Involving Northrop Grumman SecuritiesAuthorizationThis procedure was authorized by the Process Owner as of the Effective Date. It is applicable to Northrop Grumman Corporation and its wholly owned subsidiaries, to all employees, officers and directors of any of them; and to others as appropriate. This procedure shall be periodically reviewed (typically at least every three (3) years) to maintain currency and applicability to the company's business and to respond to changes in legal, regulatory, or other requirements. Any deviations or exceptions to this procedure must be approved in writing by the Process Owner.Violations of this procedure may result in disciplinary action up to and including discharge. EX-21 5 noc-12312024xex21.htm SUBSIDIARIES DocumentExhibit 21NORTHROP GRUMMAN CORPORATION SUBSIDIARIESAddress for all subsidiaries is:c/o NORTHROP GRUMMAN CORPORATIONOffice of the Secretary2980 Fairview Park DriveFalls Church, Virginia 22042Name of SubsidiaryJurisdiction of IncorporationOwnership PercentageNorthrop Grumman Systems CorporationDelaware100%Northrop Grumman Overseas Holdings, Inc.Delaware100%The company has additional subsidiaries, which do not constitute significant subsidiaries.All the above listed subsidiaries have been consolidated in the company's consolidated financial statements. EX-23 6 noc-12312024xex23.htm CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM DocumentExhibit 23CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRMNorthrop Grumman Corporation2980 Fairview Park DriveFalls Church, Virginia 22042We consent to the incorporation by reference in Registration Statement Nos. 033-59815, 033-59853, 333-67266, 333-100179, 333-107734, 333-121104, 333-125120, 333-127317, 333-175798, 333-273482, and 333-281008 on Form S-8, 333-270497 on Form S-3, and 333-264549 on Form S-4 of our reports dated JanuaryÂ 29, 2025, relating to the financial statements of Northrop Grumman Corporation and subsidiaries, and the effectiveness of Northrop Grumman Corporation and subsidiaries' internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended December 31, 2024./s/ Deloitte & Touche LLPMcLean, VirginiaJanuaryÂ 29, 2025 -4- EX-24 7 noc-12312024xex24.htm POWER OF ATTORNEY DocumentExhibit 24POWER OF ATTORNEY IN CONNECTION WITH THE 2024 ANNUAL REPORT ON FORM 10-KKNOW ALL MEN BY THESE PRESENTS, that each of the undersigned directors and officers of NORTHROP GRUMMAN CORPORATION, a Delaware corporation, does hereby appoint KATHRYN G. SIMPSON and JENNIFER C. MCGAREY, and each of them as his or her agents and attorneys-in-fact (the "Agents"), in his or her respective name and in the capacity or capacities indicated below, to execute and/or file the Annual Report on Form 10-K for the fiscal year ended December 31, 2024 (the "Report") under the Securities Exchange Act of 1934, as amended (the "Act"), and any one or more amendments to any part of the Report that may be required to be filed under the Act (including the financial statements, schedules and all exhibits and other documents filed therewith or constituting a part thereof) and to any part or all of any amendment(s) to the Report, whether executed and filed by the undersigned or by any of the Agents. Further, each of the undersigned does hereby authorize and direct the Agents to take any and all actions and execute and file any and all documents with the Securities and Exchange Commission (the "Commission"), which they deem necessary or advisable to comply with the Act and the rules and regulations or orders of the Commission adopted or issued pursuant thereto, to the end that the Report shall be properly filed under the Act. Finally, each of the undersigned does hereby ratify each and every act and documents which the Agents may take, execute or file pursuant thereto with the same force and effect as though such action had been taken or such document had been executed or filed by the undersigned, respectively.This Power of Attorney shall remain in full force and effect until revoked or superseded by written notice filed with the Commission.IN WITNESS WHEREOF, each of the undersigned has caused this Power of Attorney to be executed as of this 29th day of January 2025. /s/ David P. AbneyDirectorDavid P. Abney /s/ Marianne C. BrownDirectorMarianne C. Brown/s/ Ann M. FudgeDirectorAnn M. Fudge/s/ Madeleine A. KleinerDirectorMadeleine A. Kleiner/s/ Arvind KrishnaDirectorArvind Krishna/s/ Graham N. RobinsonDirectorGraham N. Robinson/s/ Kimberly A. RossDirectorKimberly A. Ross/s/ Gary RoughtonDirectorGary Roughton/s/ Thomas M. Schoewe DirectorThomas M. Schoewe /s/ James S. TurleyDirectorJames S. Turley/s/ Mark A. Welsh, IIIIDirectorMark A. Welsh, III/s/ Mary A. WinstonDirectorMary A. Winston/s/ Kathy J. Warden Chair, Chief Executive Officer and President (Principal Executive Officer) Kathy J. Warden/s/ Kenneth B. CrewsCorporate Vice President and Chief Financial Officer (Principal Financial Officer) Kenneth B. Crews EX-31.1 8 noc-12312024xex311.htm CERTIFICATION OF KATHY J. WARDEN DocumentNORTHROP GRUMMAN CORPORATIONÂ EXHIBIT 31.1CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002I, Kathy J. Warden, certify that:1.I have reviewed this report on Form 10-K of Northrop Grumman Corporation ("company");2.Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;3.Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;4.The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:a.Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;b.Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;c.Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; andd.Disclosed in this report any change in the company's internal control over financial reporting that occurred during the company's most recent fiscal quarter (the company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and5.The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):a)All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; andb)Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.Date: JanuaryÂ 29, 2025/s/ Kathy J. WardenKathy J. WardenChair, Chief Executive Officer and President EX-31.2 9 noc-12312024xex312.htm CERTIFICATION OF KENNETH B. CREWS DocumentNORTHROP GRUMMAN CORPORATIONÂ EXHIBIT 31.2 CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002I, Kenneth B. Crews, certify that:1.I have reviewed this report on Form 10-K of Northrop Grumman Corporation ("company");2.Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;3.Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;4.The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:a.Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;b.Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;c.Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; andd.Disclosed in this report any change in the company's internal control over financial reporting that occurred during the company's most recent fiscal quarter (the company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and5.The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):a)All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; andb)Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.Date: JanuaryÂ 29, 2025/s/ Kenneth B. CrewsKenneth B. CrewsCorporate Vice President and Chief Financial Officer EX-32.1 10 noc-12312024xex321.htm CERTIFICATION OF KATHY J. WARDEN DocumentNORTHROP GRUMMAN CORPORATIONÂ EXHIBIT 32.1 CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002In

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Disclosure - Retirement Benefits Estimated Future Benefit Payments (Details 8) link:presentationLink link:calculationLink link:definitionLink 9955563 - Disclosure - Retirement Benefits Amounts in Paragraphs - Retirement Benefits (Details 9) link:presentationLink link:calculationLink link:definitionLink 9955564 - Disclosure - Stock Compensation Plans Compensation Expense (Details 1) link:presentationLink link:calculationLink link:definitionLink 9955565 - Disclosure - Stock Compensation Plans Stock Awards (Details 2) link:presentationLink link:calculationLink link:definitionLink 9955566 - Disclosure - Stock Compensation Plans Cash Awards (Details 3) link:presentationLink link:calculationLink link:definitionLink 9955567 - Disclosure - Leases Total Lease Cost (Details 1) link:presentationLink link:calculationLink link:definitionLink 9955568 - Disclosure - Leases Balance Sheet (Details 2) link:presentationLink link:calculationLink link:definitionLink 9955569 - Disclosure - Leases Lease Other Supplemental Information (Details 3) link:presentationLink link:calculationLink link:definitionLink 9955570 - Disclosure - Leases Lease Maturities (Details 4) link:presentationLink link:calculationLink link:definitionLink 9955571 - Disclosure - Segment Reporting (Basis and CODM Disclosures) link:presentationLink link:calculationLink link:definitionLink 9955572 - Disclosure - Segment Information Reconciliation to Consolidated Operating Income (Details 1) link:presentationLink link:calculationLink link:definitionLink 9955573 - Disclosure - Segment Information Sales by Customer Type (Details 2) link:presentationLink link:calculationLink link:definitionLink 9955574 - Disclosure - Segment Information Sales by Contract Type (Details 3) link:presentationLink link:calculationLink link:definitionLink 9955575 - Disclosure - Segment Information Sales by Geographic Location (Details 4) link:presentationLink link:calculationLink link:definitionLink 9955576 - Disclosure - Segment Information Segment Sales (Details 5) link:presentationLink link:calculationLink link:definitionLink 9955577 - Disclosure - Segment Information Intersegment Sales and Operating Income (Details 6) link:presentationLink link:calculationLink link:definitionLink 9955578 - Disclosure - Segment Information Capital Expenditures and Depreciation and Amortization (Details 7) link:presentationLink link:calculationLink link:definitionLink 9955579 - Disclosure - Subsequent Events (Details) link:presentationLink link:calculationLink link:definitionLink EX-101.CAL 13 noc-20241231\_cal.xml XBRL TAXONOMY EXTENSION CALCULATION LINKBASE DOCUMENT EX-101.DEF 14 noc-20241231\_def.xml XBRL TAXONOMY EXTENSION DEFINITION LINKBASE DOCUMENT EX-101.LAB 15 noc-20241231\_lab.xml XBRL TAXONOMY EXTENSION LABEL LINKBASE DOCUMENT 2026 Defined Benefit Plan, Expected Future Benefit Payment, Year Two Adjustments to reconcile to net cash provided by operating activities: Adjustments to Reconcile Net Income (Loss) to Cash Provided by (Used in) Operating Activities [Abstract] Related Party Transactions Disclosure Related Party Transactions Disclosure [Text Block] Payments of long-term debt Repayments of Long-Term Debt Share Repurchase Program, Remaining Authorized, Amount Share Repurchase Program, Remaining Authorized, Amount Income tax expense at statutory rate Effective Income Tax Rate Reconciliation at Federal Statutory Income Tax Rate, Amount Lessee, Operating Lease, Liability, Payments, Due after Year Five Lessee, Operating Lease, Liability, to be Paid, after Year Five Increase (decrease) in cash and cash equivalents Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Period Increase (Decrease), Including Exchange Rate Effect Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period Lessee, Operating Lease, Liability, Maturity [Table Text Block] Lessee, Operating Lease, Liability, to be Paid, Maturity [Table Text Block] Inventory Deferred Tax Assets, Inventory Income Tax Jurisdiction [Domain] Income Tax Jurisdiction [Domain] Trading Symbol Trading Symbol Long-term Debt and Lease Obligation Long-Term Debt and Lease Obligation Non-NEOs Non-NEOs [Member] Tax benefits from stock-based compensation expense Share-Based Payment Arrangement, Expense, Tax Benefit Cash dividends declared per share Common stock dividend (in dollars per share) Common Stock, Dividends, Per Share, Declared 2027 Defined Benefit Plan, Expected Future Benefit Payment, Year Three Allowance for expected credit losses Accounts Receivable, Allowance for Credit Loss, Current Accelerated Share Repurchases [Table] Accelerated Share Repurchases [Table] Additional information by Segment (Table Amounts) [Abstract] Segment Reporting Information, Additional Information [Abstract] Stock issued, settlement of fully vested stock awards, fair value grant date Stock Issued During Period, Fair Value Grant Date, Share-based Compensation Stock Issued During Period, Fair Value Grant Date, Share-based Compensation Segment Reporting, CODM, Individual Title and Position or Group Name [Extensible Enumeration] Segment Reporting, CODM, Individual Title and Position or Group Name [Extensible Enumeration] Accounts receivable, net Increase (Decrease) in Accounts Receivable Earnings Per Share Earnings Per Share, Policy [Policy Text Block] Non-Rule 10b5-1 Arrangement Adopted Non-Rule 10b5-1 Arrangement Adopted [Flag] Cash surrender value of life insurance Cash Surrender Value of Life Insurance Fair Value Disclosures Fair Value Disclosures [Text Block] Land Land [Member] Stock Award Rollforward Activity Share-Based Compensation Arrangements by Share-Based Payment Award, Performance-Based Units, Vested and Expected to Vest [Table Text Block] Award Timing Disclosures [Line Items] Document and Entity Information [Abstract] Document and Entity Information [Abstract] Document and Entity Information. Share Based Compensation Arrangement By Share Based Payment Award Award Grants Percentage Financial Metric Met Exceeded Share Based Compensation Arrangement By Share Based Payment Award Award Grants Percentage Financial Metric Met Exceeded Share based compensation arrangement by share based payment award award grants percentage financial metric met exceeded. Tax credits Deferred Tax Assets, Tax Credit Carryforwards Revenue from Contract with Customer [Abstract] Revenue from Contract with Customer [Abstract] Plan Name [Domain] Plan Name [Domain] United States UNITED STATES Other non-current assets Other Assets, Noncurrent Threatened Litigation [Member] Threatened Litigation [Member] Leases [Abstract] Leases [Abstract] Gross customer-related and other intangible assets Finite-Lived Intangible Assets, Gross Operating Segments Operating Segments [Member] Operating Segments [Member] Effective Income Tax Rate Reconciliation, FDII, Amount Effective Income Tax Rate Reconciliation, FDII, Amount Net cash provided by operating activities Net Cash Provided by (Used in) Operating Activities Operating activities Net Cash Provided by (Used in) Operating Activities [Abstract] 2034 2034 Notes [Member] 2034 Notes Accumulated Other Comprehensive Loss Schedule of Accumulated Other Comprehensive Income (Loss) [Table Text Block] Average investment term, alternative investments Average Investment Term, Alternative Investments Average Investment Term, Alternative Investments December 2023 Share Repurchase Program December 2023 Share Repurchase Program [Member] December 2023 Share Repurchase Program Other Stockholders' Equity, Other Sales percentage RevenuefromContractwithCustomerPercentage RevenuefromContractwithCustomerPercentage Award Timing Method Award Timing Method [Text Block] Net periodic pension and OPB income Net periodic benefit cost (benefit) Defined Benefit Plan, Net Periodic Benefit Cost (Credit) Trading Arrangements, by Individual Trading Arrangements, by Individual [Table] Acquired Finite-Lived Intangible Assets [Line Items] Acquired Finite-Lived Intangible Assets [Line Items] Measurement Frequency [Axis] Measurement Frequency [Axis] Entity Common Stock, Shares Outstanding Entity Common Stock, Shares Outstanding Change in Unrecognized Tax Benefit, Reasonably Possible [Table] Change in Unrecognized Tax Benefit, Reasonably Possible [Table] Environmental costs Environmental Costs, Policy [Policy Text Block] Insider Trading Policies and Procedures [Line Items] Proceeds from Divestiture of Businesses Proceeds from Divestiture of Businesses Fair value of plan assets Defined Benefit Plan, Plan with Accumulated Benefit Obligation in Excess of Plan Assets, Plan Assets Accounting Estimates Use of Estimates, Policy [Policy Text Block] 2054 2054 Notes [Member] 2054 Notes Adjustment to Compensation, Amount Adjustment to Compensation Amount Paid-in capital Additional Paid in Capital, Common Stock Compensation Amount Outstanding Recovery Compensation Amount Aggregate Change in Present Value of Accumulated Benefit for All Pension Plans Reported in Summary Compensation Table Aggregate Change in Present Value of Accumulated Benefit for All Pension Plans Reported in Summary Compensation Table [Member] Entity Small Business Entity Small Business Company Selected Measure Amount Company Selected Measure Amount Tabular List, Table Tabular List [Table Text Block] Fair Value, Inputs, Level 3 [Member] Level 3 Fair Value, Inputs, Level 3 [Member] Share-based Compensation by Share-based Payment Award Share-Based Compensation Arrangement by Share-Based Payment Award [Line Items] Amounts accrued for probable environmental remediation costs Accrual for Environmental Loss Contingencies Expected long-term return on plan assets Defined Benefit Plan, Assumptions Used Calculating Net Periodic Benefit Cost, Expected Long-Term Rate of Return on Plan Assets Receivables, unpaid long-term contracts Receivables, Long-Term Contracts or Programs Retiree benefits Deferred Tax Assets, Tax Deferred Expense, Compensation and Benefits, Postretirement Benefits Credit Facility [Domain] Credit Facility [Domain] Accounts Receivable by Customer (Table Amounts) [Table] Accounts and Financing Receivables [Table] Accounts and Financing Receivables [Table] Goodwill Beginning balance Ending balance Goodwill Payments of employee taxes withheld from share-based awards Payment, Tax Withholding, Share-Based Payment Arrangement Other comprehensive (loss) income, net of tax Other Comprehensive Income (Loss), Net of Tax [Abstract] Amount Authorized Share Repurchase Program, Authorized, Amount Inventoried Costs, Net Inventory Disclosure [Text Block] Bank loans Bank Loans [Member] This category includes information about firm holdings in borrowings from a bank. Fixed Income Funds Fixed Income Funds [Member] Fixed-income securities Fixed Income Securities [Member] Employee Stock Option Share-Based Payment Arrangement, Option [Member] Reconciliation of Revenue from Segments to Consolidated [Table] Reconciliation of Revenue from Segments to Consolidated [Table] Foreign Exchange Forward [Member] Foreign Exchange Forward [Member] Lessee, Operating Lease, Liability, Payments, Due Next Year Lessee, Operating Lease, Liability, to be Paid, Year One Other, net Proceeds from (Payments for) Other Financing Activities Significant Change in Unrecognized Tax Benefits is Reasonably Possible [Line Items] Significant Change in Unrecognized Tax Benefits is Reasonably Possible [Line Items] Comprehensive income Comprehensive Income (Loss), Net of Tax, Attributable to Parent Pension Benefits Pension Plan [Member] Repurchase Agreements, Resale Agreements, Securities Borrowed, and Securities Loaned Disclosure Repurchase Agreements, Resale Agreements, Securities Borrowed, and Securities Loaned Disclosure [Text Block] Other net, Percent Effective Income Tax Rate Reconciliation, Other Adjustments, Percent Award Type [Axis] Award Type [Axis] Corporate debt Corporate Debt Securities [Member] Basic earnings per share Earnings Per Share, Basic [Abstract] Payments to Acquire Land Payments to Acquire Land Inventory, Work in Process, Net of Reserves Inventory, Work in Process, Net of Reserves Property, plant and equipment, net of accumulated depreciation of \$8,733 for 2024 and \$7,964 for 2023 Property, plant, and equipment, net Property, Plant and Equipment, Net ICFR Auditor Attestation Flag ICFR Auditor Attestation Flag Total liabilities Liabilities Credit Facility, Covenant Terms, Maximum Debt to Capitalization Ratio Line of Credit Facility, Covenant Terms Common stock, Par Value Common Stock, Par or Stated Value Per Share Legal Entity Type of Counterparty [Domain] Legal Entity Type of Counterparty [Domain] Backlog, Awards, and Related Adjustments [Table] Backlog, Awards, and Related Adjustments [Table] Backlog, Awards, and Related Adjustments Schedule of Share-based Compensation Arrangements by Share-based Payment Award [Table] Schedule of Share-Based Compensation Arrangements by Share-Based Payment Award [Table] Revolving Credit Facility [Member] Revolving Credit Facility [Member] Expiration Date Trading Arrangement Expiration Date Investing activities Net Cash Provided by (Used in) Investing Activities [Abstract] Operating Lease, Liability, Current Operating Lease, Liability, Current Total Shareholder Return Amount Total Shareholder Return Amount Income Tax Reconciliation (Table Amounts) [Abstract] Income Tax Expense (Benefit), Effective Income Tax Rate Reconciliation,

Amount [Abstract] Equity Awards Adjustments, Footnote Equity Awards Adjustments, Footnote [Text Block] Share Repurchases Class of Treasury Stock [Table Text Block] Subsequent Event [Line Items] Subsequent Event [Line Items] Property, plant and equipment, at cost Property, Plant and Equipment, Gross Segment Reporting, Measurement Disclosures [Abstract] Segment Reporting, Measurement Disclosures [Abstract] Participant contributions Defined Benefit Plan, Plan Assets, Contributions by Plan Participant Other Comprehensive (Income) Loss, Defined Benefit Plan, Prior Service Cost (Credit), before Tax Other Comprehensive (Income) Loss, Defined Benefit Plan, Prior Service Cost (Credit), before Tax Debt Instrument [Line Items] Debt Instrument [Line Items] Named Executive Officers, Footnote Named Executive Officers, Footnote [Text Block] Goodwill and Other Purchased Intangible Assets Goodwill and Intangible Assets, Policy [Policy Text Block] Weighted-average diluted shares outstanding, in millions Weighted Average Number of Shares Outstanding, Diluted Contract with Customer, Basis of Pricing [Axis] Contract with Customer, Basis of Pricing [Axis] MNPI Disclosure Timed for Compensation Value MNPI Disclosure Timed for Compensation Value [Flag] Total shareholdersâ€™ equity Beginning of year End of year Equity, Attributable to Parent Line of Credit Facility, Covenant Compliance Line of Credit Facility, Covenant Compliance Gross deferred tax assets Deferred Tax Assets, Gross Derivatives and other assets Other Asset Categories [Member] Other holdings. Operating lease liabilities Deferred Tax Asset Lease Liabilities Deferred Tax Asset Lease Liabilities Other, net UnrecognizedTaxBenefitsOther Unrecognized Tax Benefits, Other Litigation Case [Axis] Litigation Case [Axis] Type of Adoption [Domain] Accounting Standards Update [Domain] Schedule of Goodwill [Table Text Block] Schedule of Goodwill [Table Text Block] Capitalized software costs Software and Software Development Costs [Member] Principal Amount - Northrop Grumman Corporation Notes (Registered Notes) Principal Amount - Northrop Grumman Corporation Notes (Registered Notes) Principal Amount - Northrop Grumman Corporation Notes (Registered Notes) 2040 2040 Notes [Member] 2040 Notes 2030 2030 Notes [Member] 2030 Notes Product [Member] Product [Member] Document Fiscal Period Focus Document Fiscal Period Focus 2028 Long-Term Debt, Maturity, Year Four All Executive Categories All Executive Categories [Member] Incremental Common Shares Attributable to Dilutive Effect of Share-based Payment Arrangements Incremental Common Shares Attributable to Dilutive Effect of Share-Based Payment Arrangements Statement of Financial Position Location, Balance [Domain] Statement of Financial Position Location, Balance [Domain] Global public equities Equity Securities [Member] 2026 Finite-Lived Intangible Asset, Expected Amortization, Year Two Changed Peer Group, Footnote Changed Peer Group, Footnote [Text Block] Assets Assets [Abstract] Retirement Plan Type [Domain] Retirement Plan Type [Domain] Other comprehensive (loss) income, net of tax Other comprehensive (loss) income, net of tax Other Comprehensive Income (Loss), Net of Tax Document Type Document Type Derivative Contract [Domain] Derivative Contract [Domain] Actuarial (gain) loss Defined Benefit Plan, Benefit Obligation, Actuarial Gain (Loss) Backlog, Awards, and Related Adjustments [Line Items] Backlog, Awards, and Related Adjustments [Line Items] Backlog, Awards, and Related Adjustments Proceeds from (Repayments of) Commercial Paper Proceeds from (Repayments of) Commercial Paper International and Other Customers [Member] International and Other Customers [Member] International and Other customers. Initial Claim [Member] Initial Claim [Member] Initial Claim [Member] - Amount of initial claim in a litigation matter. Defined Benefit Plan [Table] Defined Benefit Plan [Table] Contract with Customer, Asset and Liability Contract with Customer, Contract Asset, Contract Liability, and Receivable [Table Text Block] Depreciation and amortization Depreciation, Amortization and Accretion, Net Schedule of Finite-Lived Intangible Assets, Future Amortization Expense [Table Text Block] Schedule of Finite-Lived Intangible Assets, Future Amortization Expense [Table Text Block] Inventory, Current [Table] Inventory, Current [Table] Subsequent Event [Table] Subsequent Event [Table] Assets and Liabilities, Lessee [Abstract] Assets and Liabilities, Lessee [Abstract] Actual Percent Return On Plan Assets Actual Percent Return On Plan Assets Defined Benefit Plan, Actual Percent Return On Plan Assets Share Repurchases - Notes to Table [Abstract] Share Repurchases - Notes to Table [Abstract] Share Repurchases - Notes to Table Maximum [Member] Maximum Maximum [Member] Equity Valuation Assumption Difference, Footnote Equity Valuation Assumption Difference, Footnote [Text Block] Gain Contingencies, Nature [Axis] Gain Contingencies, Nature [Axis] Goodwill, Impaired, Accumulated Impairment Loss Goodwill, Impaired, Accumulated Impairment Loss Net contract, program and other intangible assets Finite-Lived Intangible Assets, Net Trade accounts payable Accounts Payable, Current Increase (Decrease) in Inventoried Costs, Net Increase (Decrease) in Inventoried Costs, Net Increase (Decrease) in Inventoried Costs, Net Cash Units and Cash Performance Units [Member] Cash Units and Cash Performance Units [Member] Cash Units and Cash Performance Units [Member] Total lease cost Lease, Cost Range Range Statistical Measurement [Axis] Non-Rule 10b5-1 Arrangement Terminated Non-Rule 10b5-1 Arrangement Terminated [Flag] Earnings before income taxes Income (Loss) from Continuing Operations before Income Taxes, Noncontrolling Interest Non-PEO NEO Average Total Compensation Amount Non-PEO NEO Average Total Compensation Amount Property, plant and equipment, net Deferred Tax Liabilities, Property, Plant and Equipment Accumulated Other Comprehensive Income (Loss), Other Components, Net of Tax Accumulated Other Comprehensive Income (Loss), Other Components, Net of Tax Accumulated Other Comprehensive Income (Loss), Other Components, Net of Tax Name Outstanding Recovery, Individual Name Variable lease cost Variable Lease, Cost Award Timing Predetermined Award Timing Predetermined [Flag] Subsequent Event Type [Domain] Subsequent Event Type [Domain] Cash dividends paid Payments of Ordinary Dividends, Common Stock Proceeds from sale of equipment to a customer Cash flow from Sale of Equipment to a Customer Cash flow from Sale of Equipment to a Customer Amortization of prior service credit Defined Benefit Plan, Amortization of Prior Service Cost (Credit) Diluted earnings per share Earnings Per Share, Diluted Estimated Benefit Payments (Table Amounts) [Abstract] Defined Benefit Plan, Expected Future Benefit Payment [Abstract] Other Goodwill, Period Increase (Decrease) Revenue from Contract with Customer Revenue from Contract with Customer [Policy Text Block] Operating costs and expenses Cost of Goods and Services Sold [Abstract] Amount of decrease (increase) in Contract with Customer, Liability, Current Increase (Decrease) in Contract with Customer, Liability Restatement does not require Recovery Restatement Does Not Require Recovery [Text Block] Hedge Funds Hedge Funds [Member] Hedge Funds [Member] Backlog Reduction Due to Contract Termination Backlog Reduction Due to Contract Termination Backlog Reduction Due to Contract Termination Retirement Benefits [Abstract] Retirement Benefits [Abstract] Preferred Stock, shares issued Preferred Stock, Shares Issued Customer [Axis] Customer [Axis] Government Contract Receivable, Progress Payment Offset Government Contract Receivable, Progress Payment Offset Statement of Financial Position [Abstract] Statement of Financial Position [Abstract] Asset backed Asset-Backed Securities [Member] Significant matters affecting comparability Significant matters affecting effective tax rate comparability, percent 740-10-50-14. If not otherwise evident from the disclosures required by this Section, all entities shall disclose the nature and effect of any other significant matters affecting comparability of information for all periods presented. Research credit Effective Income Tax Rate Reconciliation, Tax Credit, Research, Amount Net change in unrecognized tax benefits Unrecognized Tax Benefits, Period Increase (Decrease) Other Deferred Tax Liabilities, Other Federal and foreign income tax expense Total federal and foreign income tax expense Income Tax Expense (Benefit) Interest cost Defined Benefit Plan, Interest Cost 2047 2047 Notes [Member] 2047 Notes Derivative, Notional Amount Derivative, Notional Amount Derivative Asset Derivative Asset Components of Net Periodic Benefit Cost (Table Amounts) [Abstract] Defined Benefit Plan, Net Periodic Benefit Cost (Credit) [Abstract] Weighted-average period for unrecognized compensation expense to be charged to expense Share-Based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Period for Recognition 2031 2031 Notes [Member] 2031 Notes Inventory Write-down Inventory Write-down Changes in Unamortized Benefit plan Costs (Table Amounts) [Abstract] Defined Benefit Plan, Amounts Recognized in Other Comprehensive Income (Loss) [Abstract] Net cash used in investing activities Net Cash Provided by (Used in) Investing Activities Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions Share-based Compensation Arrangement by Share-based Payment Award, Number of Additional Shares Authorized Share-Based Compensation Arrangement by Share-Based Payment Award, Number of Additional Shares Authorized Income Tax Jurisdiction [Axis] Income Tax Jurisdiction [Axis] Unbilled Receivables, Net [Abstract] Unbilled Receivables, Net [Abstract] Unbilled Receivables, Net [Abstract] All Adjustments to Compensation All Adjustments to Compensation [Member] Accrued employee compensation Employee-related Liabilities, Current Prepaid expenses and other assets Increase (Decrease) in Prepaid Expense and Other Assets Short-term Debt, Type [Domain] Short-Term Debt, Type [Domain] Commitments and Contingencies Disclosure [Abstract] Commitments and Contingencies Disclosure [Abstract] Financial Arrangements (Amounts in Paragraph) Other Commitments [Abstract] Defined Contribution Plans Disclosure (Amounts in paragraphs) Defined Contribution Plan Disclosure [Line Items] Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Period Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Period U.S. Government Agency US Government Agencies Debt Securities [Member] Lease Maturities [Abstract] Lease Maturities [Abstract] Lease Maturities [Abstract] Long-term Debt, Type [Domain] Long-Term Debt, Type [Domain] 2021 Repurchase Program - Completion Date 2021 Repurchase Program - Completion Date 2021 Repurchase Program - Completion Date Entity Address, State or Province Entity Address, State or Province Erroneous Compensation Analysis Erroneous Compensation Analysis [Text Block] Plan Assets, Major Asset Categories [Domain] Defined Benefit Plan, Plan Assets, Category [Domain] Defined Benefit Plan, Plan Assets, Category [Domain] Defined Benefit Plan Disclosure (Table Amounts) Defined Benefit Plan Disclosure (Table Amounts) Defined Benefit Plan Disclosure [Line Items] Unbilled Receivables Disclosure [Text Block] Unbilled Receivables Disclosure [Text Block] Unbilled Receivables Disclosure [Text Block] Prior service credit Other Comprehensive (Income) Loss, Defined Benefit Plan, Prior Service Cost (Credit), Reclassification Adjustment from AOCI, before Tax Stock Repurchase [Line Items] Equity, Class of Treasury Stock [Line Items] Gain Contingency, Nature [Domain] Gain Contingency, Nature [Domain] Accounts Receivables [Line Items] Accounts, Notes, Loans and Financing Receivable [Line Items] Accounts, Notes, Loans and Financing Receivable [Line Items] 2022 Repurchase Program - Completion Date 2022 Repurchase Program - Completion Date 2022 Repurchase Program - Completion Date Surety Bond Outstanding Surety Bond Outstanding Surety Bond Outstanding Q1'23 ASR [Member] Q1'23 ASR [Member] Q1'23 ASR Weighted-average grant date fair value - outstanding at period start Weighted-average grant date fair value - outstanding at period end Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value Alternative Investment, Net Asset Value Alternative Investment Unbilled receivable, net of progress and performance-based payments received Unbilled Contract Receivable, net of progress and performance-based payments Unbilled Contract Receivable, net of progress and performance-based payments Restatement Determination Date Restatement Determination Date Other Supplemental Lease Information [Table Text Block] Other Supplemental Lease Information [Table Text Block] Other Supplemental Lease Information [Table Text Block] Pay vs Performance Disclosure Pay vs Performance Disclosure [Table] Pension and OPB contributions Payment for Pension and Other Postretirement Benefits Loss Contingency, Number of Defendants Loss Contingency, Number of Defendants Increase in Research Tax Credit Effective Income Tax Rate Reconciliation, Increase in Research Tax Credits Effective Income Tax Rate Reconciliation, Increase in Research Tax Credits Property, Plant and Equipment [Table] Property, Plant and Equipment [Table] Unrecognized Tax Benefits Related to Methods of Accounting - 451(b) Unrecognized Tax Benefits Related to Methods of Accounting - 451(b) Unrecognized Tax Benefits Related to Methods of Accounting - 451(b) Operating lease right-of-use assets Operating lease right-of-use assets Operating Lease, Right-of-Use Asset Erroneously Awarded Compensation Recovery Erroneously Awarded Compensation Recovery [Table] 2033 2033 Notes [Member] 2033 Notes Currency [Axis] Currency [Axis] Long-Term Debt (Table Amounts) [Abstract] Debt Instruments [Abstract] Short-term Debt, Type [Axis] Short-Term Debt, Type [Axis] Subsequent Event [Member] Subsequent Event [Member] Research credit, Percent Effective Income Tax Rate Reconciliation, Tax Credit, Research, Percent Weighted-average grant date fair value - granted Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period, Weighted Average Grant Date Fair Value January 2022 Share Repurchase Program January 2022 Share Repurchase Program [Member] January 2022 Share Repurchase Program Income Taxes Income Tax, Policy [Policy Text Block] Peer Group Issuers, Footnote Peer Group Issuers, Footnote [Text Block] Principal Amount - Northrop Grumman Corporation Notes (Unregistered Notes) Principal Amount - Northrop Grumman Corporation Notes (Unregistered Notes) Principal Amount - Northrop Grumman Corporation Notes (Unregistered Notes) Segments Segments Segments [Domain] Unrecognized Tax Benefits Rollforward (Table Amounts) [Abstract] Unrecognized Tax Benefits [Roll Forward] Maturities of Long-term Debt [Abstract] Maturities of Long-Term Debt [Abstract] PEO PEO [Member] Name Trading Arrangement, Individual Name Funded status Defined Benefit Plan, Funded (Unfunded) Status of Plan International equities International Equity Securities [Member] International Equity Securities [Member] The ownership interests or the right to acquire ownership interests in corporations and other legal entities not based in the United States which ownership interest is represented by shares of common or preferred stock (which is neither mandatorily redeemable nor redeemable at the option of the holder), convertible securities, stock rights, or stock warrants. Property, Plant and Equipment, Type [Axis] Long-Lived Tangible Asset [Axis] Entity Public Float Entity Public Float Projected benefit obligation at beginning of year Projected benefit obligation at end of year Defined Benefit Plan, Benefit Obligation 2011 Long-Term Incentive Stock Plan [Member] 2011 Long-Term Incentive Stock Plan [Member] 2011 Long-Term Incentive Stock Plan [Member] 2011 Long-Term Incentive Stock Plan [Member] Awards Close in Time to MNPI Disclosures, Table Awards Close in Time to MNPI Disclosures [Table Text Block] Other (expense) income Other Nonoperating Income (Expense) [Abstract] Prior Year End Fair Value of Equity Awards Granted in Any Prior Year that Fail to Meet Applicable Vesting Conditions During Covered Year Prior Year End Fair Value of Equity Awards Granted in Any Prior Year that Fail to Meet Applicable Vesting Conditions During Covered Year [Member] Decrease in Unrecognized Tax Benefits is Reasonably Possible Decrease in Unrecognized Tax Benefits is Reasonably Possible Aggregate Erroneous Compensation Amount Aggregate Erroneous Compensation Amount Local Phone Number Local Phone Number Accelerated Share Repurchases, Settlement (Payment) or Receipt Accelerated Share Repurchases, Settlement (Payment) or Receipt Prepaid Expenses and Other Current Assets [Member] Prepaid Expenses and Other Current Assets [Member] Less: valuation allowance Deferred Tax Assets, Valuation Allowance Aggregate Erroneous Compensation Not Yet Determined Aggregate Erroneous Compensation Not Yet Determined [Text Block] Total operating costs and expenses Operating Expenses Reconciliation of Revenue from Segments to Consolidated [Table Text Block] Reconciliation of Revenue from Segments to Consolidated [Table Text Block] Change in Accounting Estimate by Type [Axis] Change in Accounting Estimate by Type [Axis] PEO Total Compensation Amount PEO Total Compensation Amount Environmental Remediation Expense, Recovery Environmental Remediation Expense, Recovery Goodwill, Transfers Goodwill, Transfers Property, Plant and Equipment, Type [Domain] Long-Lived Tangible Asset [Domain] Plan Assets Disclosures, Major Asset Classes [Axis] Defined Benefit Plan, Plan Assets, Category [Axis] Defined Benefit Plan, Plan Assets, Category [Axis] Recorded Third-Party Environmental Recoveries, Amount Recorded Third-Party Environmental Recoveries, Amount Debt Disclosure [Abstract] Debt Disclosure [Abstract] Common stock Common Stock [Member] Forgone Recovery due to Expense of Enforcement, Amount Forgone Recovery due to Expense of Enforcement, Amount Segment Reporting [Abstract] Segment Reporting [Abstract] Entity Central Index Key Entity Central Index Key Pre-tax gain on sale of business Pre-tax gain on sale of business Pre-tax gain on sale of business Loss Contingency, Damages Sought, Value Loss Contingency, Damages Sought, Value Inventoried Costs Schedule of Inventory, Current [Table Text Block] Unrecognized Tax Benefits, Income Tax Penalties and Interest Accrued Unrecognized Tax Benefits, Income Tax Penalties and Interest Accrued Discontinued Operations and Disposal Groups [Abstract] Non-PEO NEO Average Compensation Actually Paid Amount Non-PEO NEO Average Compensation Actually Paid Amount Corporate Corporate Segment [Member] Legal Entity of Counterparty, Type [Axis] Legal Entity of Counterparty, Type [Axis] Allowance for expected credit losses Allowance for Expected Credit Losses Unbilled Receivables Allowance for Expected Credit Losses Unbilled Receivables United States of America, Dollars United States of America, Dollars Earnings Per Share, Share Repurchases and Dividends on Common Stock Equity [Text Block] Accounts payable and other liabilities Increase (Decrease) in Accounts Payable and Accrued Liabilities Award Timing, How MNPI Considered Award Timing, How MNPI Considered [Text Block] Segment Information Segment Reporting Disclosure [Text Block] Long-term Debt, Current Maturities Less: current portion Long-Term Debt, Current Maturities Lessee, Operating Lease, Lease Not yet Commenced, Term of Contract Lessee, Operating Lease, Lease Not yet Commenced, Term of Contract Accelerated Share Repurchases, Cash or Stock Settlement Accelerated Share Repurchases, Cash or Stock Settlement Change in Accounting Estimate [Table] Change in Accounting Estimate [Table] B-21 Charge Loss Contingency, Loss in Period Title Trading Arrangement, Individual Title Unrecognized tax benefits at beginning of the year Unrecognized tax benefits at end of the year Unrecognized Tax Benefits Internal Revenue Service (IRS) [Member] Internal Revenue Service (IRS) [Member] City Area Code City Area Code Accelerated Share Repurchases, Adjustment to Recorded Amount Accelerated Share Repurchases, Adjustment to Recorded Amount Auditor Location Auditor Location Provisions for accrued liabilities Deferred Tax Assets, Tax Deferred Expense, Reserves and Accruals, Accrued Liabilities Revenue Recognition Revenue [Policy Text Block] Insider Trading Policies and Procedures Not Adopted Insider Trading Policies and Procedures Not Adopted [Text Block] Gain (Loss) on Disposition of Assets Gain (Loss) on Disposition of Assets January 2021 Share Repurchase Program [Member] January 2021 Share Repurchase Program [Member] January 2021 Share Repurchase Program Common stock repurchases Payments for Repurchase of Common Stock Other Comprehensive Income (Loss), Other Components, Net of Tax Other Comprehensive Income (Loss), Other Components, Net of Tax Other Comprehensive Income (Loss), Other Components, Net of Tax Retirement Benefits Pension and Other Postretirement Plans, Policy [Policy Text Block] Long-term debt, net of current portion of \$1,582 for 2024 and \$70 for 2023 Long-Term Debt, Excluding Current Maturities Schedule of Segment Reporting Information, by Segment [Table] Reconciliation of Segment Sales by Geographic to Consolidated [Table] Schedule of Segment Reporting Information, by Segment [Table]

Stock Awards, Weighted Average Grant Date Fair Value [Table] Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value [Abstract] Subsequent Event Type [Axis] Subsequent Event Type [Axis] Gain Contingency, Unrecorded Amount Gain Contingency, Unrecorded Amount Accelerated Share Repurchase Initial Receipt (Shares) Accelerated Share Repurchase Initial Receipt (Shares) Accelerated Share Repurchase Initial Receipt (Shares) Revenue, Remaining Performance Obligation, Percentage Revenue, Remaining Performance Obligation, Percentage Summary of Significant Accounting Policies Organization, Consolidation and Presentation of Financial Statements Disclosure and Significant Accounting Policies [Text Block] Earnings Per Share [Abstract] Earnings Per Share [Abstract] Equity [Abstract] Equity [Abstract] Inventory, Raw Materials, Net of Reserves Inventory, Raw Materials, Net of Reserves Retained earnings Retained Earnings (Accumulated Deficit) Significant Awards [Axis] Significant Awards [Axis] Significant Awards Shares Repurchased Stock Repurchased and Retired During Period, Shares Inventoried costs, net Increase (Decrease) in Inventories General and administrative expenses General and Administrative Expense Deferred income taxes Deferred Income Taxes and Tax Credits Inventoried costs, net Inventory, Net of Allowances, Customer Advances and Progress Billings Non-U.S. Government Debt Security, Government, Non-US [Member] 2026 Long-Term Debt, Maturity, Year Two Aggregate Available Trading Arrangement, Securities Aggregate Available Amount Equity Awards Adjustments Equity Awards Adjustments [Member] Operating Lease, Liability, Total Operating Lease, Liability Operating Lease, Liability Underlying Securities Award Underlying Securities Amount Other Defined Benefit Plan Other Change In Plan Assets Component of change in plan assets that is not otherwise reflected in the taxonomy. Assumptions Used to Determine Benefit Cost Defined Benefit Plan, Weighted Average Assumptions Used in Calculating Net Periodic Benefit Cost [Abstract] Amendment Flag Amendment Flag Commercial Paper Commercial Paper Participant contributions Defined Benefit Plan, Benefit Obligation, Contributions by Plan Participant Accumulated Other Comprehensive Income (Loss), Foreign Currency Translation Adjustment, Net of Tax Accumulated Other Comprehensive Income (Loss), Foreign Currency Translation Adjustment, Net of Tax Stock Appreciation Rights (SARs) Stock Appreciation Rights (SARs) [Member] Plan Asset Allocation Ranges (Table Amounts) [Abstract] Defined Benefit Plan, Plan Assets, Allocations [Abstract] Machinery and other equipment Machinery and Equipment [Member] Subsequent Events [Abstract] General and Administrative Expenses Selling, General and Administrative Expenses, Policy [Policy Text Block] Net gain on plan assets Defined Benefit Plan, Plan Assets, Increase (Decrease) for Actual Return (Loss) Debt issuance costs Debt Issuance Costs, Net Long-Term Debt Debt Disclosure [Text Block] Fair Value Hierarchy and NAV [Domain] Fair Value Hierarchy and NAV [Domain] Research and Development as a Percent of Sales Research and Development as a Percent of Sales Recovery of Erroneously Awarded Compensation Disclosure [Line Items] Lease Other Supplemental Information (Details 3) [Abstract] Lease Other Supplemental Information (Details 3) [Abstract] Lease Other Supplemental Information (Details 3) [Abstract] Lease Other Supplemental Information (Details 3) [Abstract] Debt Instrument, Face Amount Debt Instrument, Face Amount Entity Address, Postal Zip Code Entity Address, Postal Zip Code Notes Payable, Other Payables [Member] Notes Payable, Other Payables [Member] Percent decrease (increase) in Contract with Customer, Liability, Current Percent decrease (increase) in Contract with Customer, Liability, Current Percent decrease (increase) in Contract with Customer, Liability, Current Litigation Status [Axis] Litigation Status [Axis] Contracts Accounted for under Percentage of Completion [Member] Contracts Accounted for under Percentage of Completion [Member] Other, net Payments for (Proceeds from) Other Investing Activities Other Noncurrent Assets [Member] Other Noncurrent Assets [Member] Year-over-year Change in Fair Value of Equity Awards Granted in Prior Years that are Outstanding and Unvested Year-over-year Change in Fair Value of Equity Awards Granted in Prior Years that are Outstanding and Unvested [Member] Auditor Name Auditor Name 2045 2045 Notes [Member] 2045 Notes Weighted-average grant date fair value - forfeited Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Forfeitures, Weighted Average Grant Date Fair Value Other Current Liabilities [Member] Other Current Liabilities [Member] Year-end Fair Value of Equity Awards Granted in Covered Year that are Outstanding and Unvested Year-end Fair Value of Equity Awards Granted in Covered Year that are Outstanding and Unvested [Member] Proceeds from Sale, Maturity and Collection of Investments Proceeds from Sale, Maturity and Collection of Investments Property, plant and equipment, estimated useful life Property, Plant and Equipment, Useful Life 2027 2027 Notes [Member] 2027 Notes Adjustment To PEO Compensation, Footnote Adjustment To PEO Compensation, Footnote [Text Block] Designated as Hedging Instrument [Member] Designated as Hedging Instrument [Member] Noncash Investing and Financing Activities Related Text Noncash Investing and Financing Activities Related Text Stock awards, outstanding, weighted average remaining contractual terms Share-based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Outstanding, Weighted Average Remaining Contractual Terms Effective Income Tax Rate Reconciliation, Nondeductible Expense, Percent Effective Income Tax Rate Reconciliation, Nondeductible Expense, Percent Compensation Actually Paid vs. Other Measure Compensation Actually Paid vs. Other Measure [Text Block] Vesting Date Fair Value of Equity Awards Granted and Vested in Covered Year Vesting Date Fair Value of Equity Awards Granted and Vested in Covered Year [Member] Projected benefit obligation Defined Benefit Plan, Pension Plan with Accumulated Benefit Obligation in Excess of Plan Assets, Projected Benefit Obligation Total assets Assets Minimum Loss Contingency Minimum Loss Contingency [Member] Minimum Loss Contingency Cost of Goods and Services Sold Cost of Goods and Services Sold Mission Systems Mission Systems [Member] Mission Systems [Member] Mission Systems reporting segment. Operating Loss Carryforwards, Valuation Allowance Operating Loss Carryforwards, Valuation Allowance Capital expenditures Payments to Acquire Property, Plant, and Equipment Other non-current liabilities Other Liabilities, Noncurrent Forgone Recovery due to Violation of Home Country Law, Amount Forgone Recovery due to Violation of Home Country Law, Amount Derivative Instruments and Hedging Activities Disclosures [Table] Derivative Instruments and Hedging Activities Disclosures [Table] Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction [Line Items] Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction [Line Items] Commitments and contingencies (Note 11) Commitments and Contingencies Stock Compensation Share-Based Payment Arrangement [Policy Text Block] Income tax reconciliation Schedule of Effective Income Tax Rate Reconciliation [Table Text Block] Termination Date Trading Arrangement Termination Date Percent increase (decrease) in net contract assets (liabilities) Percent increase (decrease) in net contract assets (liabilities) Percent increase (decrease) in net contract assets (liabilities) Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items] Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items] Lessee, Operating Lease, Liability, Payments, Due Year Two Lessee, Operating Lease, Liability, to be Paid, Year Two 2025 Long-Term Debt, Maturity, Year One Revenue from External Customers by Geographic Areas [Table Text Block] Revenue from External Customers by Geographic Areas [Table Text Block] Schedule of Gain (Loss) on Securities [Table] Schedule of Gain (Loss) on Securities [Table] Debt Instrument [Axis] Debt Instrument [Axis] Net earnings Net earnings (from above) Net earnings Net Income (Loss) Attributable to Parent Trading Arrangement: Trading Arrangement [Axis] Expected Long Term Rate of Return Defined Benefit Plan, Assumptions Used Calculating Benefit Obligation, Expected Long Term Rate of Return Defined Benefit Plan, Assumptions Used Calculating Benefit Obligation, Expected Long Term Rate of Return Additional information by segment Segment, Reconciliation of Other Items from Segments to Consolidated [Table Text Block] 2030 through 2034 Defined Benefit Plan, Expected Future Benefit Payment, after Year Five for Next Five Years Pay vs Performance Disclosure, Table Pay vs Performance [Table Text Block] Plan asset allocation Schedule of Allocation of Plan Assets [Table Text Block] Equity Awards Adjustments, Excluding Value Reported in Compensation Table Equity Awards Adjustments, Excluding Value Reported in the Compensation Table [Member] Entity File Number Entity File Number Year that the cash balance crediting rate reaches the ultimate rate Defined Benefit Plan, Benefit Cost, Cash Balance Crediting Rate, Year that the rate reaches the ultimate rate Defined Benefit Plan, Cash Balance Crediting Rate, Year that the rate reaches the ultimate rate, used to calculate benefit cost. Weighted-average plan assumptions Defined Benefit Plan, Assumptions [Table Text Block] Life Settlement Contracts, Disclosure Life Settlement Contracts, Disclosure [Text Block] Income Statement [Abstract] Income Statement [Abstract] Entity Address, Address Line One Entity Address, Address Line One Income Tax Expense (Table Amounts) [Abstract] Components of Income Tax Expense (Benefit), Continuing Operations [Abstract] Extinguishment of Debt, Amount Extinguishment of Debt, Amount Current federal income tax expense (benefit) Current Federal Tax Expense (Benefit) Dividends declared Dividends, Common Stock Name Forgone Recovery, Individual Name Operating Lease, Weighted Average Remaining Lease Term Operating Lease, Weighted Average Remaining Lease Term Components of net periodic benefit cost Schedule of Costs of Retirement Plans [Table Text Block] Contract with Customer, Basis of Pricing [Domain] Contract with Customer, Basis of Pricing [Domain] Loss Contingency, Nature [Domain] Loss Contingency, Nature [Domain] Cash Surrender Value of Life Insurance Policies Investment, Policy [Policy Text Block] Other, net Other Noncash Income (Expense) Award Timing MNPI Considered Award Timing MNPI Considered [Flag] Deferred Tax Liabilities (Table Amounts) Components of Deferred Tax Liabilities [Abstract] Estimated benefit payments Schedule of Expected Benefit Payments [Table Text Block] Reductions for tax positions of prior years Unrecognized Tax Benefits, Decrease Resulting from Prior Period Tax Positions Inventory Disclosure [Abstract] Inventory Disclosure [Abstract] Outstanding Aggregate Erroneous Compensation Amount Outstanding Aggregate Erroneous Compensation Amount Benefit Obligation [Member] Benefit Obligation [Member] Post-retirement benefit obligation. PEO Actually Paid Compensation Amount PEO Actually Paid Compensation Amount Other Defined Benefit Plan, Other Cost (Credit) Adjustment to Compensation: Adjustment to Compensation [Axis] Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Frequency Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Frequency Inventory for Long-term Contracts or Programs, General and Administrative Costs Included in Inventory Inventory for Long-Term Contracts or Programs, General and Administrative Costs Included in Inventory Segment Reporting, Factors Used to Identify Entity's Reportable Segments Segment Reporting, Factors Used to Identify Entity's Reportable Segments Segment Reporting, Disclosure of Entity's Reportable Segments [Abstract] Litigation Case Type [Domain] Litigation Case [Domain] Accumulated other comprehensive loss Total accumulated other comprehensive loss Accumulated Other Comprehensive Income (Loss), Net of Tax Pension Adjustments Service Cost [Member] Pension Adjustments Service Cost [Member] Weighted-average common shares outstanding, in millions Weighted Average Number of Shares Outstanding, Basic Stock Price or TSR Estimation Method Stock Price or TSR Estimation Method [Text Block] Defined Benefit Plan, Plan Assets, Target Allocation, Percentage Defined Benefit Plan, Plan Assets, Target Allocation, Percentage Amortization of: Amortization Of Prior Service Cost And Losses [Abstract] Amortization of Prior Service Cost and Losses. Components of Deferred Tax Assets and Liabilities (Table Amounts) [Abstract] Components of Deferred Tax Assets and Liabilities [Abstract] Name Awards Close in Time to MNPI Disclosures, Individual Name Year that the health care cost trend rate reaches the ultimate trend rate Defined Benefit Plan, Year Health Care Cost Trend Rate Reaches Ultimate Trend Rate Loss Contingency, Range of Possible Loss, Portion Not Accrued Loss Contingency, Range of Possible Loss, Portion Not Accrued Entity Filer Category Entity Filer Category Revenue, Remaining Performance Obligation, Amount Revenue, Remaining Performance Obligation, Amount Loss Contingencies [Line Items] Loss Contingencies [Line Items] Revenue Contract with Customer, Performance Obligation Satisfied in Previous Period Percent Increase (Decrease) in Inventoried Costs, Net Percent Increase (Decrease) in Inventoried Costs, Net Percent Increase (Decrease) in Inventoried Costs, Net California Franchise Tax Board [Member] California Franchise Tax Board [Member] Other Customers Other Customers [Member] US state and local government and US commercial customers. 2029 2029 Notes [Member] 2029 Notes Range Statistical Measurement [Domain] Capital Expenditures Segment, Expenditure, Addition to Long-Lived Assets Net contract assets Contract with Customer, Asset, after Allowance for Credit Loss, Current Lease, Cost [Table Text Block] Lease, Cost [Table Text Block] Fixed-price Fixed-Price Contract [Member] Other current liabilities Other Liabilities, Current Unrecognized Tax Benefits that Would Impact Effective Tax Rate Unrecognized Tax Benefits that Would Impact Effective Tax Rate Segment Reporting Information [Line Items] Segment Reporting Information [Line Items] All Trading Arrangements All Trading Arrangements [Member] Compensation Actually Paid vs. Net Income Compensation Actually Paid vs. Net Income [Text Block] Stock plans, vesting period Share-Based Compensation Arrangement by Share-Based Payment Award, Award Vesting Period Tax Credit Carryforward, Amount Tax Credit Carryforward, Amount Rule 10b5-1 Arrangement Adopted Rule 10b5-1 Arrangement Adopted [Flag] Awards Close in Time to MNPI Disclosures Awards Close in Time to MNPI Disclosures [Table] Deferred Tax Assets, Tax Deferred Expense, Compensation and Benefits, Postretirement Benefits Deferred Tax Liabilities, Tax Deferred Expense, Compensation and Benefits, Postretirement Benefits Income taxes paid, net Income Taxes Paid, Net Pay vs Performance Disclosure [Line Items] U.S. equities U.S. Equity Securities [Member] The ownership interests or the right to acquire ownership interests in corporations and other legal entities based in the United States which ownership interest is represented by shares of common or preferred stock (which is neither mandatorily redeemable nor redeemable at the option of the holder), convertible securities, stock rights, or stock warrants. Peer Group Total Shareholder Return Amount Peer Group Total Shareholder Return Amount Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis] Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis] Performance Measure, Amount Other Performance Measure, Amount Rate of compensation increase Defined Benefit Plan, Assumptions Used Calculating Net Periodic Benefit Cost, Rate of Compensation Increase 2027 Finite-Lived Intangible Asset, Expected Amortization, Year Three Investigations, Claims and Litigation Legal Matters and Contingencies [Text Block] Goodwill [Line Items] Goodwill [Line Items] Lessee, Operating Leases [Text Block] Lessee, Operating Leases [Text Block] Common stock, shares outstanding Common Stock, Shares, Outstanding Mark-to-market pension and OPB benefit (expense) Defined Benefit Plan, Actuarial Gain (Loss), Immediate Recognition as Component in Net Periodic Benefit (Cost) Credit Schedule of Acquired Finite-Lived Intangible Asset by Major Class [Table] Schedule of Acquired Finite-Lived Intangible Asset by Major Class [Table] Total foreign income tax expense Foreign Income Tax Expense (Benefit), Continuing Operations Documents Incorporated by Reference Documents Incorporated by Reference [Text Block] Operating lease cost Operating Lease, Cost Total long-term debt Debt and Lease Obligation Share-based Compensation Arrangement by Share-based Payment Award, Number of Shares Available for Grant Share-Based Compensation Arrangement by Share-Based Payment Award, Number of Shares Available for Grant Operating lease liabilities Operating Lease, Liability, Noncurrent Operating Lease, Liability, Noncurrent Benefits paid Defined Benefit Plan, Benefit Obligation, Benefits Paid Advance payments and billings in excess of costs incurred Advance payments and billings in excess of costs incurred Contract with Customer, Liability, Current Total federal income tax expense Federal Income Tax Expense (Benefit), Continuing Operations Defense Systems Defense Systems [Member] Defense Systems reporting segment. Service cost Defined Benefit Plan, Service Cost Entity Tax Identification Number Entity Tax Identification Number 2024 Long-Term Incentive Stock Plan 2024 Long-Term Incentive Stock Plan [Member] 2024 Long-Term Incentive Stock Plan Long-term debt Schedule of Long-Term Debt Instruments [Table Text Block] Additions for tax positions of prior years Unrecognized Tax Benefits, Increase Resulting from Prior Period Tax Positions Retirement Plan Type [Axis] Retirement Plan Type [Axis] Deferred foreign income tax expense (benefit) Deferred Foreign Income Tax Expense (Benefit) Accounts Receivable, Net Loans, Notes, Trade and Other Receivables Disclosure [Text Block] Rate to which the health care cost trend rate is assumed to decline (the ultimate trend rate) Defined Benefit Plan, Ultimate Health Care Cost Trend Rate Unused standby letters of credit and bank guarantees Standby Unused Letters Of Credit and bank guarantees Financial instruments issued by a bank, on behalf of the company and in favor of a beneficiary, which substitutes the company's credit worthiness with that of the bank. Letters of Credit are usually issued in conformance with a set of governing rules. Tax Adjustments, Settlements, and Unusual Provisions Tax Adjustments, Settlements, and Unusual Provisions Rate of compensation increase Defined Benefit Plan, Assumptions Used Calculating Benefit Obligation, Rate of Compensation Increase Other Defined Benefit Plan, Benefit Obligation, Increase (Decrease) for Other Change U.S. Treasuries US Treasury Securities [Member] Intersegment OM Intersegment Sales Intersegment Eliminations [Member] Plan Name [Axis] Plan Name [Axis] Loss Contingency, Damages Awarded, Value Loss Contingency, Damages Awarded, Value Income Taxes Receivable Income Taxes Receivable Statement, Equity Components [Axis] Equity Components [Axis] Prepaid expenses and other current assets Other Assets, Current Research and Development Research and Development Expense, Policy [Policy Text Block] Diluted earnings per share Earnings Per Share, Diluted [Abstract] Shares repurchased amount Treasury Stock, Value, Acquired, Par Value Method Geographical [Axis] Geographical [Axis] Total net deferred tax assets Deferred Tax Assets, Net Lessee, Operating Lease, Liability, Payments, Due Year Five Lessee, Operating Lease, Liability, to be Paid, Year Five Loss Contingency, Accrual, Current Loss Contingency, Accrual, Current Gain (Loss) on Disposition of Business Gain (Loss) on Disposition of Business Pension and Other Post-retirement benefit plans [Member] Pension and Other Post-retirement benefit plans [Member] Pension and Other Post-retirement benefit plans. Aggregate Grant Date Fair Value of Equity Award Amounts Reported in Summary Compensation Table Aggregate Grant Date Fair Value of Equity Award Amounts Reported in Summary Compensation Table [Member] Loss Contingency Accrual Loss Contingency Accrual Unbilled receivables Schedule of Unbilled Receivables [Table Text Block] Schedule of Unbilled Receivables [Table Text Block] Income Tax Reconciliation Deductions Taxing Authorities Settlements, Percent Effective Income Tax Rate Reconciliation, Tax Settlement, Domestic, Percent Cash and cash equivalents Cash and cash equivalents, beginning of year Cash and cash equivalents, end of period Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents Aeronautics Systems Aeronautics Systems [Member] Aeronautics Systems reporting segment. Share-based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Amount Share-Based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Amount Current foreign income tax expense (benefit) Current Foreign Tax Expense (Benefit) Consolidation Items [Axis] Consolidation Items [Axis] Former Gain Contingency, Recognized in Current

Period Former Gain Contingency, Recognized in Current Period Fair Value of Financial Instruments Fair Value of Financial Instruments, Policy [Policy Text Block] Forgone Recovery due to Disqualification of Tax Benefits, Amount Forgone Recovery due to Disqualification of Tax Benefits, Amount Product and Service [Domain] Product and Service [Domain] Short-term lease cost Short-Term Lease, Cost Weighted-average grant date fair value - vested Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Vested in Period, Weighted Average Grant Date Fair Value Goodwill (Table Amounts) Goodwill [Roll Forward] Fair Value Disclosures [Abstract] Fair Value Disclosures [Abstract] Unrecognized Tax Benefit Related to Methods of Accounting Unrecognized Tax Benefit Related to Methods of Accounting Unrecognized Tax Benefit Related to Methods of Accounting Preferred Stock, shares outstanding Preferred Stock, Shares Outstanding Unbilled receivables, net Increase (Decrease) in Other Receivables Security Exchange Name Security Exchange Name Amended 2011 Plan [Domain] Amended 2011 Plan [Domain] Amended 2011 Plan [Domain] Gain (Loss) on Securities [Line Items] Gain (Loss) on Securities [Line Items] Stock Award Activity (Table) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Number of Shares [Roll Forward] Short-term Debt Short-Term Debt Forgone Recovery, Explanation of Impracticability Forgone Recovery, Explanation of Impracticability [Text Block] Research and development expenses Research and Development Expense Fair Value, Nonrecurring [Member] Fair Value, Nonrecurring [Member] Accounts Receivable, after Allowance for Credit Loss [Abstract] Accounts Receivable, after Allowance for Credit Loss [Abstract] Principal Amount - Northrop Grumman Corporation Notes Principal Amount - Northrop Grumman Corporation Notes Principal Amount - Northrop Grumman Corporation Notes Goodwill and Intangible Assets Disclosure [Abstract] Goodwill and Intangible Assets Disclosure [Abstract] Common stock, shares issued Common Stock, Shares, Issued Income taxes payable, net Increase (Decrease) in Income Taxes Payable Line of Credit Facility, Maximum Borrowing Capacity Line of Credit Facility, Maximum Borrowing Capacity Year that the cash balance crediting rate reaches the ultimate rate Defined Benefit Plan, Benefit Obligation, Cash Balance Crediting Rate, Year that rate reaches ultimate rate Defined Benefit Plan, Cash Balance Crediting Rate, Year that rate reaches ultimate rate, used to calculate benefit obligation, in CCY format. Derivative Liability Derivative Liability Real Estate Funds [Member] Real Estate Funds Real Estate Funds [Member] Insider Trading Policies and Procedures Adopted Insider Trading Policies and Procedures Adopted [Flag] Accumulated depreciation Accumulated depreciation Accumulated Depreciation, Depletion and Amortization, Property, Plant, and Equipment IT services divestiture nondeductible goodwill IncomeTaxReconciliationDeductionsITServicesDivestitureGoodwill Amount of the difference between reported income tax expense (benefit) and expected income tax expense (benefit) computed by applying the domestic federal statutory income tax rates to pretax income (loss) from continuing operations attributable to IT services divestiture nondeductible goodwill. Europe Europe [Member] Common stock, shares authorized Common Stock, Shares Authorized Pension plans with accumulated benefit obligations in excess of fair value of plan assets (Table Amounts) [Abstract] Defined Benefit Plan, Plan with Accumulated Benefit Obligation in Excess of Plan Assets [Abstract] Derivative Assets (Liabilities), at Fair Value, Net Derivative Assets (Liabilities), at Fair Value, Net Investments in Debt and Equity Instruments, Cash and Cash Equivalents, Unrealized and Realized Gains (Losses) Investments in Debt and Equity Instruments, Cash and Cash Equivalents, Unrealized and Realized Gains (Losses) [Text Block] 2026 2026 Notes [Member] 2026 Notes Long-term Debt, Type [Axis] Long-Term Debt, Type [Axis] Entity Voluntary Filers Entity Voluntary Filers December 2024 Share Repurchase Program December 2024 Share Repurchase Program [Member] December 2024 Share Repurchase Program Statement of Financial Position Location, Balance [Axis] Statement of Financial Position Location, Balance [Axis] Hedging Designation [Domain] Hedging Designation [Domain] Discount rate Defined Benefit Plan, Assumptions Used Calculating Benefit Obligation, Discount Rate Non-operating FAS pension benefit Net FAS (non-service) Pension Benefit (Expense) Net FAS (non-service) Pension Benefit (Expense) Fair Value, Recurring [Member] Fair Value, Recurring [Member] Accounts receivable, net Accounts receivable, net Accounts Receivable, after Allowance for Credit Loss, Current Revenues from External Customers and Long-Lived Assets [Line Items] Revenues from External Customers and Long-Lived Assets [Line Items] Noncash or Part Noncash Acquisition, Fixed Assets Acquired Noncash or Part Noncash Acquisition, Fixed Assets Acquired Long-term debt Long-term debt Long-Term Debt Pension Adjustments Prior Service Cost Pension Adjustments Prior Service Cost [Member] Fair value of plan assets at beginning of year Fair value of plan assets at end of year Fair value of plan assets Defined Benefit Plan, Plan Assets, Amount Thereafter Long-Term Debt, Maturity, after Year Five Accounts receivable, gross Accounts Receivable, before Allowance for Credit Loss, Current Q1'24 ASR [Member] Q1 2024 ASR [Member] Q1'24 ASR Commercial Paper [Member] Commercial Paper [Member] Pension Benefits Adjustments, Footnote Pension Benefits Adjustments, Footnote [Text Block] Total Shareholder Return Vs Peer Group Total Shareholder Return Vs Peer Group [Text Block] Average Price Per Share Shares Acquired, Average Cost Per Share Tax expense (benefit) related to above items Other Comprehensive (Income) Loss, Defined Benefit Plan, after Reclassification Adjustment, Tax Document Annual Report Document Annual Report Stock awards - vested Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Vested in Period Inventoried Costs Inventory Costs for Contracts or Programs, Policy [Policy Text Block] Amortization of Intangible Assets Amortization of Intangible Assets Summary of Significant Accounting Policies (Amounts in paragraphs) Accounting Policies [Abstract] Liabilities Liabilities [Abstract] Litigation, Commitments, and Contingencies Commitments and Contingencies, Policy [Policy Text Block] Leasehold improvements Leasehold Improvements [Member] Intersegment sales and operating income Segment Reporting Information Intersegment Sales And Operating Income [Table Text Block] Tabular disclosure of segment reporting information intersegment sales and operating income. Current Fiscal Year End Date Current Fiscal Year End Date Lessee, Operating Lease, Liability, Undiscounted Excess Amount Lessee, Operating Lease, Liability, Undiscounted Excess Amount Increase (Decrease) in Stock Dividend, Percentage Increase (Decrease) in Stock Dividend, Percentage Increase (Decrease) in Stock Dividend, Percentage PEO Name PEO Name Award Type [Domain] Award Type [Domain] Stock-based compensation Deferred Tax Assets, Tax Deferred Expense, Compensation and Benefits, Share-Based Compensation Cost 2025 2025 Notes [Member] 2025 Notes All Other All Other - Geographic Region [Domain] All Other - Geographic Region [Domain] Compensation Actually Paid vs. Company Selected Measure Compensation Actually Paid vs. Company Selected Measure [Text Block] Pension and other postretirement benefit plan liabilities Non-current liability Liability, Defined Benefit Plan, Noncurrent Deferred tax assets Deferred Income Tax Assets, Net Non-PEO NEO Non-PEO NEO [Member] Paid-in capital Additional Paid-in Capital [Member] Accounts receivable Schedule of Accounts, Notes, Loans and Financing Receivable [Table Text Block] Increase (Decrease) in Contract with Customer, Asset Increase (Decrease) in Contract with Customer, Asset Gain on Sale of Investments Gain on Sale of Investments Retirement Benefits Retirement Benefits [Text Block] Other, net Effective Income Tax Rate Reconciliation, Other Adjustments, Amount New Accounting Pronouncements, Policy New Accounting Pronouncements, Policy [Policy Text Block] Unbilled receivables, net Unbilled Receivables, Current Unbilled receivables, net Unbilled Receivables, Current Finite-Lived Intangible Assets by Major Class [Axis] Finite-Lived Intangible Assets by Major Class [Axis] Less accumulated amortization Finite-Lived Intangible Assets, Accumulated Amortization Name Measure Name Entity Interactive Data Current Entity Interactive Data Current Deferred Tax Assets (Table Amounts) Components of Deferred Tax Assets [Abstract] Maximum Loss Contingency Maximum Loss Contingency [Member] Maximum Loss Contingency Effective Income Tax Rate Reconciliation, FDII, Percent Effective Income Tax Rate Reconciliation, FDII, Percent Fair value of assets and liabilities measured on a recurring basis Schedule of Fair Value, Assets and Liabilities Measured on Recurring Basis [Table Text Block] Cash Units and Cash Performance Units Aggregate Payout Amount [Table Text Block] Cash Units and Cash Performance Units Aggregate Payout Amount [Table Text Block] [Table Text Block] for Cash Units and Cash Performance Units Aggregate Payout Amount [Table] Post-retirement Benefit Cost [Member] Post-retirement Benefit Cost [Member] Post-retirement benefit cost. Schedule of Revenue by Major Customers by Reporting Segments [Table Text Block] Schedule of Revenue by Major Customers by Reporting Segments [Table Text Block] Stock-based compensation Share-Based Payment Arrangement, Noncash Expense Fair Value Measured at Net Asset Value Per Share Fair Value Measured at Net Asset Value Per Share [Member] Net deferred tax assets Deferred Tax Assets, Net of Valuation Allowance OpportunisticFunds OpportunisticFunds [Member] Investments in a broad range of primarily private investment funds, including illiquid credit investments. NGI Program [Member] NGI Program [Member] NGI Program Debt Instrument, Interest Rate, Stated Percentage Debt Instrument, Interest Rate, Stated Percentage Segment Reporting, Reconciling Item, Corporate Nonsegment [Member] Segment Reporting, Reconciling Item, Corporate Nonsegment [Member] Initial cash balance crediting rate assumed for the next year Defined Benefit Plan, Benefit Cost, Cash Balance Crediting Rate Assumed for next fiscal year Cash Balance Crediting Rate Assumed for next fiscal year used to calculate benefit cost Unrecognized Tax Benefits, Decrease Resulting from Settlements with Taxing Authorities Settlements with taxing authorities Unrecognized Tax Benefits, Decrease Resulting from Settlements with Taxing Authorities Service [Member] Service [Member] Interest Costs Capitalized Interest Costs Capitalized Other long-term debt Other Long-Term Debt International International Customer [Member] International Customer Auditor Firm ID Auditor Firm ID Effective income tax rate Effective income tax rate Effective Income Tax Rate Reconciliation, Percent Operating income Operating income Operating income (Loss) HALO Program [Member] HALO Program [Member] HALO Program Number of reportable segments Number of Reportable Segments Total liabilities and shareholdersâ€™ equity Liabilities and Equity Subsequent Events Subsequent Events [Text Block] Rule 10b5-1 Arrangement Terminated Rule 10b5-1 Arrangement Terminated [Flag] Fair Value Hierarchy and NAV [Axis] Plan Assets by Fair Value Measurement Input [Axis] Fair Value Hierarchy and NAV [Axis] Marketable Securities Marketable Securities, Policy [Policy Text Block] Hedging Designation [Axis] Hedging Designation [Axis] Deferred Tax Asset, R&E Expenditure Capitalization Deferred Tax Asset, R&E Expenditure Capitalization Deferred Tax Asset, R&E Expenditure Capitalization Finite-Lived Intangible Assets, Major Class Name [Domain] Finite-Lived Intangible Assets, Major Class Name [Domain] Long-term debt maturities Schedule of Maturities of Long-Term Debt [Table Text Block] Right-of-Use Asset Obtained in Exchange for Operating Lease Liability Right-of-Use Asset Obtained in Exchange for Operating Lease Liability Underlying Security Market Price Change Underlying Security Market Price Change, Percent Expected return on plan assets Defined Benefit Plan, Expected Return (Loss) on Plan Assets Individual: Individual [Axis] Buildings and improvements Building and Building Improvements [Member] Accumulated other comprehensive loss AOCL Attributable to Parent [Member] Yearly Discount Rate change in basis points Yearly Discount Rate change in basis points Defined Benefit Plan, Assumptions Used Calculating Benefit Obligation, Discount Rate Change in basis points Inventoried costs, net Inventory, Net Intersegment Costs [Member] Intersegment Costs [Member] Intersegment Costs PrivateCreditFunds PrivateCreditFunds [Member] PrivateCreditFunds Product and Service [Axis] Product and Service [Axis] Property, Plant and Equipment Property, Plant and Equipment [Line Items] Statement [Line Items] Statement [Line Items] Sales and operating income by segment Reconciliation of Operating Profit (Loss) from Segments to Consolidated [Table Text Block] Trade and Other Accounts Receivable, Unbilled Receivables, Policy Trade and Other Accounts Receivable, Unbilled Receivables, Policy [Policy Text Block] Rate to which the cash balance crediting rate is assumed to increase/decrease (the ultimate rate) Defined Benefit Plan, Benefit Obligation, Ultimate Cash Balance Crediting Rate Defined Benefit Plan Ultimate Cash Balance Crediting Rate used to calculate the benefit obligation Benefits paid Defined Benefit Plan, Plan Assets, Benefits Paid Property, Plant and Equipment Property, Plant and Equipment [Table Text Block] Compensation Actually Paid vs. Total Shareholder Return Compensation Actually Paid vs. Total Shareholder Return [Text Block] Derivative Financial Instruments Derivatives, Policy [Policy Text Block] Loss Contingency, Estimate of Possible Loss Loss Contingency, Estimate of Possible Loss Asia/Pacific Asia Pacific [Member] Current unrecognized tax benefits Current unrecognized tax benefits Current unrecognized tax benefits Minimum Minimum [Member] Adoption Date Trading Arrangement Adoption Date Incremental claim [Member] Incremental claim [Member] Incremental claim [Member] - Incremental claim related to a litigation matter. 2043 2043 Notes [Member] 2043 Notes Pension plans with accumulated benefit obligations in excess of fair value of plan assets Defined Benefit Plan, Plan with Accumulated Benefit Obligation in Excess of Plan Assets [Table Text Block] Deferred Compensation Cash-based Arrangements, Liability, Current Deferred Compensation Cash-Based Arrangements, Liability, Current Segments [Axis] Segments [Axis] Revenue from Sale of Equipment to a Customer Revenue from Sale of Equipment to a Customer Revenue from Sale of Equipment to a Customer Change in Fair Value as of Vesting Date of Prior Year Equity Awards Vested in Covered Year Change in Fair Value as of Vesting Date of Prior Year Equity Awards Vested in Covered Year [Member] Five Year Term [Member] Five Year Term [Member] Five Year Term [Member] Five Year Term [Member] Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Explanation Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Explanation Derivative Instrument [Axis] Derivative Instrument [Axis] Effective Income Tax Rate Reconciliation, at Federal Statutory Income Tax Rate, Percent Effective Income Tax Rate Reconciliation, at Federal Statutory Income Tax Rate, Percent Inventory [Line Items] Inventory [Line Items] Total principal payments Long-Term Debt, Gross IT services divestiture nondeductible goodwill, Percent IncomeTaxReconciliationDeductionsITServicesDivestitureGoodwill, Percent IncomeTaxReconciliationDeductionsITServicesDivestitureGoodwill, Percent Exercise Price Award Exercise Price 2023 2023 Notes [Member] 2023 Notes Grants During 2010 and After [Member] Grants During 2010 and After [Member] Grants During 2010 and After [Member] Components of deferred tax assets and liabilities Schedule of Deferred Tax Assets and Liabilities [Table Text Block] Accelerated Share Repurchase Final Receipt Shares Accelerated Share Repurchase Final Receipt Shares Accelerated Share Repurchase Final Receipt Shares NOC Common Stock [Member] NOC Common Stock [Member] NOC Common Stock Initial health care cost trend rate assumed for the next year Defined Benefit Plan, Health Care Cost Trend Rate Assumed, Next Fiscal Year Arrangement Duration Trading Arrangement Duration Operating Loss Carryforwards Operating Loss Carryforwards Lessee, Operating Lease, Lease Not yet Commenced, Value Lessee, Operating Lease, Lease Not yet Commenced, Value Lessee, Operating Lease, Lease Not yet Commenced, Value Goodwill and Intangible Assets Goodwill and Intangible Assets Disclosure [Text Block] Shareholdersâ€™ equity Equity, Attributable to Parent [Abstract] Rate to which the cash balance crediting rate is assumed to increase (the ultimate rate) Defined Benefit Plan, Benefit Cost, Ultimate Cash Balance Crediting Rate Defined Benefit Plan Ultimate Cash Balance Crediting Rate, used to calculate benefit cost Segment Reporting, CODM, Profit (Loss) Measure, How Used, Description Segment Reporting, CODM, Profit (Loss) Measure, How Used, Description Material Terms of Trading Arrangement Material Terms of Trading Arrangement [Text Block] 2028 Finite-Lived Intangible Asset, Expected Amortization, Year Four Deferred tax liabilities Deferred Tax and Other Liabilities, Noncurrent All Individuals All Individuals [Member] Audit Information [Abstract] Audit Information Income Tax Disclosure [Abstract] Income Tax Disclosure [Abstract] Other, net Other Nonoperating Income (Expense) Medical and Life Benefits OPB contributions Other Postretirement Benefits Plan [Member] Statement of Stockholders' Equity [Abstract] Statement of Stockholders' Equity [Abstract] Intangible assets, net Intangible Assets, Net (Excluding Goodwill) Receivables [Abstract] Receivables [Abstract] Changes in unamortized benefit plan costs Schedule of Amounts Recognized in Other Comprehensive Income (Loss) [Table Text Block] IT services divestiture nondeductible goodwill IT services divestiture nondeductible goodwill IT services divestiture nondeductible goodwill Change in plan assets Defined Benefit Plan, Change in Fair Value of Plan Assets [Roll Forward] Current liability Liability, Defined Benefit Plan, Current Tax Credit Carryforward, Valuation Allowance Tax Credit Carryforward, Valuation Allowance 2053 2053 Notes [Member] 2053 Notes Significant Awards [Domain] Significant Awards [Domain] Significant Awards Proceeds from (Repayments of) Lines of Credit Proceeds from (Repayments of) Lines of Credit Contract accounting differences Deferred Tax Liabilities, Tax Deferred Income Change in unamortized benefit plan costs Other Comprehensive (Income) Loss, Defined Benefit Plan, after Reclassification Adjustment, after Tax Deferred federal income tax expense (benefit) Deferred Federal Income Tax Expense (Benefit) Share Repurchase Program [Domain] Share Repurchase Program [Domain] Cash and cash equivalents Cash and Cash Equivalents, Policy [Policy Text Block] Commitments and Contingencies Commitments and Contingencies Disclosure [Text Block] Change in projected benefit obligation Defined Benefit Plan, Change in Benefit Obligation [Roll Forward] Measure: Measure [Axis] Shares issued for employee stock awards and options Shares Issued, Value, Share-Based Payment Arrangement, after Forfeiture Additions based on tax positions related to the current year Unrecognized Tax Benefits, Increase Resulting from Current Period Tax Positions Preferred Stock, shares authorized Preferred Stock, Shares Authorized 2025 Defined Benefit Plan, Expected Future Benefit Payment, Year One Revenue, Major Customer [Line Items] Revenue, Major Customer [Line Items] Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments

[illegible]

[illegible]



[illegible]



[illegible]

[illegible]





|                                                                      |                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Entity Tax Identification Number</a>                     | 80-0640649                                                                                                                                                                                                                                             |
| <a href="#">Entity Address, Address Line One</a>                     | 2980 Fairview Park Drive                                                                                                                                                                                                                               |
| <a href="#">Entity Address, City or Town</a>                         | Falls Church,                                                                                                                                                                                                                                          |
| <a href="#">Entity Address, State or Province</a>                    | VA                                                                                                                                                                                                                                                     |
| <a href="#">Entity Address, Postal Zip Code</a>                      | 22042                                                                                                                                                                                                                                                  |
| <a href="#">City Area Code</a>                                       | 703                                                                                                                                                                                                                                                    |
| <a href="#">Local Phone Number</a>                                   | 280-2900                                                                                                                                                                                                                                               |
| <a href="#">Title of 12(b) Security</a>                              | Common Stock                                                                                                                                                                                                                                           |
| <a href="#">Trading Symbol</a>                                       | NOC                                                                                                                                                                                                                                                    |
| <a href="#">Security Exchange Name</a>                               | NYSE                                                                                                                                                                                                                                                   |
| <a href="#">Entity Well-known Seasoned Issuer</a>                    | Yes                                                                                                                                                                                                                                                    |
| <a href="#">Entity Voluntary Filers</a>                              | No                                                                                                                                                                                                                                                     |
| <a href="#">Entity Current Reporting Status</a>                      | Yes                                                                                                                                                                                                                                                    |
| <a href="#">Entity Interactive Data Current</a>                      | Yes                                                                                                                                                                                                                                                    |
| <a href="#">Entity Filer Category</a>                                | Large Accelerated Filer                                                                                                                                                                                                                                |
| <a href="#">Entity Small Business</a>                                | false                                                                                                                                                                                                                                                  |
| <a href="#">Entity Emerging Growth Company</a>                       | false                                                                                                                                                                                                                                                  |
| <a href="#">ICFR Auditor Attestation Flag</a>                        | true                                                                                                                                                                                                                                                   |
| <a href="#">Entity Shell Company</a>                                 | false                                                                                                                                                                                                                                                  |
| <a href="#">Entity Public Float</a>                                  |                                                                                                                                                                                                                                                        |
| <a href="#">Entity Common Stock, Shares Outstanding</a>              | \$ 63.7<br>144,755,659                                                                                                                                                                                                                                 |
| <a href="#">Documents Incorporated by Reference</a>                  | Portions of Northrop Grumman Corporation's Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for the 2025 Annual Meeting of Shareholders are incorporated by reference in Part III of this Form 10-K. |
| <a href="#">Document Financial Statement Error Correction [Flag]</a> | false                                                                                                                                                                                                                                                  |
| <a href="#">XML 20 R2.htm IDEA: XBRL DOCUMENT</a>                    |                                                                                                                                                                                                                                                        |

**Audit Information**  
**12 Months Ended**  
**Dec. 31, 2024**

|                                  |                       |
|----------------------------------|-----------------------|
| <a href="#">Auditor Name</a>     | Deloitte & Touche LLP |
| <a href="#">Auditor Firm ID</a>  | 34                    |
| <a href="#">Auditor Location</a> | McLean, Virginia      |

[XML 21 R3.htm IDEA: XBRL DOCUMENT](#)

| <b>Consolidated<br/>Statements of<br/>Earnings and<br/>Comprehensive<br/>Income - USD (\$)<br/>shares in Millions, \$<br/>in Millions</b> | <b>12 Months Ended</b> |                      |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------|----------------------|
|                                                                                                                                           | <b>Dec. 31, 2024</b>   | <b>Dec. 31, 2023</b> | <b>Dec. 31, 2022</b> |
| <a href="#">Revenues</a>                                                                                                                  | \$ 41,033              | \$ 39,290            | \$ 36,602            |
| <a href="#">Operating income</a>                                                                                                          | 4,370                  | 2,537                | 3,601                |
| <a href="#">Other Comprehensive Income (Loss), Foreign Currency Transaction and Translation Adjustment, Net of Tax</a>                    | (2)                    | 23                   | (16)                 |
| <a href="#">Other Comprehensive Income (Loss), Other Components, Net of Tax</a>                                                           | (22)                   | 2                    | 6                    |
| <b><a href="#">Operating costs and expenses</a></b>                                                                                       |                        |                      |                      |
| <a href="#">General and administrative expenses</a>                                                                                       | 3,992                  | 4,014                | 3,873                |
| <a href="#">Total operating costs and expenses</a>                                                                                        | 36,663                 | 36,753               | 33,001               |
| <a href="#">Operating income</a>                                                                                                          | 4,370                  | 2,537                | 3,601                |
| <b><a href="#">Other (expense) income</a></b>                                                                                             |                        |                      |                      |
| <a href="#">Interest expense</a>                                                                                                          | (621)                  | (545)                | (506)                |
| <a href="#">Non-operating FAS pension benefit</a>                                                                                         | 656                    | 530                  | 1,505                |
| <a href="#">Mark-to-market pension and OPB benefit (expense)</a>                                                                          | 443                    | (422)                | 1,232                |
| <a href="#">Other, net</a>                                                                                                                | 168                    | 246                  | 4                    |
| <a href="#">Earnings before income taxes</a>                                                                                              | 5,016                  | 2,346                | 5,836                |
| <a href="#">Federal and foreign income tax expense</a>                                                                                    | 842                    | 290                  | 940                  |
| <a href="#">Net earnings</a>                                                                                                              | \$ 4,174               | \$ 2,056             | \$ 4,896             |
| <b><a href="#">Basic earnings per share</a></b>                                                                                           |                        |                      |                      |
| <a href="#">Basic earnings per share</a>                                                                                                  | \$ 28.39               | \$ 13.57             | \$ 31.61             |
| <a href="#">Weighted-average common shares outstanding, in millions</a>                                                                   | 147.0                  | 151.5                | 154.9                |
| <b><a href="#">Diluted earnings per share</a></b>                                                                                         |                        |                      |                      |
| <a href="#">Diluted earnings per share</a>                                                                                                | \$ 28.34               | \$ 13.53             | \$ 31.47             |
| <a href="#">Weighted-average diluted shares outstanding, in millions</a>                                                                  | 147.3                  | 152.0                | 155.6                |
| <a href="#">Net earnings (from above)</a>                                                                                                 | \$ 4,174               | \$ 2,056             | \$ 4,896             |
| <b><a href="#">Other comprehensive (loss) income, net of tax</a></b>                                                                      |                        |                      |                      |
| <a href="#">Other comprehensive (loss) income, net of tax</a>                                                                             | (24)                   | 25                   | (10)                 |
| <a href="#">Comprehensive income</a>                                                                                                      | 4,150                  | 2,081                | 4,886                |
| <a href="#">Product [Member]</a>                                                                                                          |                        |                      |                      |
| <a href="#">Cost of Goods and Services Sold</a>                                                                                           | 26,188                 | 26,226               | 22,761               |
| <a href="#">Revenues</a>                                                                                                                  | 32,726                 | 30,897               | 28,522               |
| <a href="#">Service [Member]</a>                                                                                                          |                        |                      |                      |
| <a href="#">Cost of Goods and Services Sold</a>                                                                                           | 6,483                  | 6,513                | 6,367                |
| <a href="#">Revenues</a>                                                                                                                  | \$ 8,307               | \$ 8,393             | \$ 8,080             |

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| <b>Consolidated<br/>Statements of<br/>Financial Position -<br/>USD (\$)<br/>\$ in Millions</b>                          | <b>Dec. 31, 2024</b> |          | <b>Dec. 31, 2023</b> |
|-------------------------------------------------------------------------------------------------------------------------|----------------------|----------|----------------------|
|                                                                                                                         |                      |          |                      |
| <b><a href="#">Assets</a></b>                                                                                           |                      |          |                      |
| <a href="#">Cash and cash equivalents</a>                                                                               |                      | \$ 4,353 | \$ 3,109             |
| <a href="#">Accounts receivable, net</a>                                                                                |                      | 1,272    | 1,454                |
| <a href="#">Unbilled receivables, net</a>                                                                               |                      | 5,908    | 5,693                |
| <a href="#">Inventoried costs, net</a>                                                                                  |                      | 1,455    | 1,109                |
| <a href="#">Prepaid expenses and other current assets</a>                                                               |                      | 1,286    | 2,341                |
| <a href="#">Total current assets</a>                                                                                    |                      | 14,274   | 13,706               |
| <a href="#">Property, plant and equipment, net of accumulated depreciation of \$8,733 for 2024 and \$7,964 for 2023</a> |                      | 10,536   | 9,653                |
| <a href="#">Operating lease right-of-use assets</a>                                                                     |                      | 1,770    | 1,818                |
| <a href="#">Goodwill</a>                                                                                                |                      | 17,512   | 17,517               |
| <a href="#">Intangible assets, net</a>                                                                                  |                      | 254      | 305                  |
| <a href="#">Deferred tax assets</a>                                                                                     |                      | 1,599    | 1,020                |
| <a href="#">Non-current assets</a>                                                                                      |                      | 2,184    | 1,331                |
| <a href="#">Other non-current assets</a>                                                                                |                      | 1,230    | 1,194                |
| <a href="#">Total assets</a>                                                                                            |                      | 49,359   | 46,544               |
| <b><a href="#">Liabilities</a></b>                                                                                      |                      |          |                      |
| <a href="#">Trade accounts payable</a>                                                                                  |                      | 2,599    | 2,110                |
| <a href="#">Accrued employee compensation</a>                                                                           |                      | 2,271    | 2,251                |
| <a href="#">Advance payments and billings in excess of costs incurred</a>                                               |                      | 4,070    | 4,193                |
| <a href="#">Other current liabilities</a>                                                                               |                      | 5,188    | 3,388                |
| <a href="#">Total current liabilities</a>                                                                               |                      | 14,128   | 11,942               |
| <a href="#">Long-term debt, net of current portion of \$1,582 for 2024 and \$70 for 2023</a>                            |                      | 14,692   | 13,786               |

|                                                                                                                                           |           |           |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| <a href="#">Pension and other postretirement benefit plan liabilities</a>                                                                 | 1,120     | 1,290     |
| <a href="#">Operating lease liabilities</a>                                                                                               | 1,798     | 1,892     |
| <a href="#">Other non-current liabilities</a>                                                                                             | 2,331     | 2,839     |
| <a href="#">Total liabilities</a>                                                                                                         | 34,069    | 31,749    |
| <a href="#">Commitments and contingencies (Note 11)</a>                                                                                   |           |           |
| <b>Shareholders' equity</b>                                                                                                               |           |           |
| <a href="#">Preferred stock, \$1 par value; 10,000,000 shares authorized; no shares issued and outstanding</a>                            | 0         | 0         |
| <a href="#">Common stock, \$1 par value; 800,000,000 shares authorized; issued and outstanding: 2024—144,952,026 and 2023—150,109,271</a> | 145       | 150       |
| <a href="#">Paid-in capital</a>                                                                                                           | 0         | 0         |
| <a href="#">Retained earnings</a>                                                                                                         | 15,297    | 14,773    |
| <a href="#">Accumulated other comprehensive loss</a>                                                                                      | (152)     | (128)     |
| <a href="#">Total shareholders' equity</a>                                                                                                | 15,290    | 14,795    |
| <a href="#">Total liabilities and shareholders' equity</a>                                                                                | \$ 49,359 | \$ 46,544 |

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**Consolidated  
Statements of  
Financial Position  
(Parentheticals) -  
USD (\$)  
\$ in Millions**

**Dec. 31, 2024 Dec. 31, 2023**

**Statement of Financial Position [Abstract]**

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| <a href="#">Accumulated depreciation</a>            | \$ 8,733    | \$ 7,964    |
| <a href="#">Long-term Debt, Current Maturities</a>  | \$ 1,582    | \$ 70       |
| <a href="#">Preferred Stock, par value</a>          | \$ 1        | \$ 1        |
| <a href="#">Preferred Stock, shares authorized</a>  | 10,000,000  | 10,000,000  |
| <a href="#">Preferred Stock, shares issued</a>      | 0           | 0           |
| <a href="#">Preferred Stock, shares outstanding</a> | 0           | 0           |
| <a href="#">Common stock, Par Value</a>             | \$ 1        | \$ 1        |
| <a href="#">Common stock, shares authorized</a>     | 800,000,000 | 800,000,000 |
| <a href="#">Common stock, shares issued</a>         | 144,952,026 | 150,109,271 |
| <a href="#">Common stock, shares outstanding</a>    | 144,952,026 | 150,109,271 |

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**Consolidated  
Statements of Cash  
Flows - USD (\$)  
\$ in Millions**

**12 Months Ended**

**Dec. 31, 2024 Dec. 31, 2023 Dec. 31, 2022**

**Operating activities**

|                                                                               |          |          |          |
|-------------------------------------------------------------------------------|----------|----------|----------|
| <a href="#">Net earnings</a>                                                  | \$ 4,174 | \$ 2,056 | \$ 4,896 |
| <b>Adjustments to reconcile to net cash provided by operating activities:</b> |          |          |          |
| <a href="#">Depreciation and amortization</a>                                 | 1,370    | 1,338    | 1,342    |
| <a href="#">Mark-to-market pension and OPB (benefit) expense</a>              | (443)    | 422      | (1,232)  |
| <a href="#">Stock-based compensation</a>                                      | 101      | 87       | 99       |
| <a href="#">Deferred income taxes</a>                                         | (582)    | (988)    | (321)    |
| <a href="#">B-21 Charge</a>                                                   | 0        | 1,559    | 0        |
| <a href="#">Net periodic pension and OPB income</a>                           | (438)    | (308)    | (1,193)  |
| <a href="#">Pension and OPB contributions</a>                                 | (129)    | (139)    | (136)    |
| <b>Changes in assets and liabilities:</b>                                     |          |          |          |
| <a href="#">Accounts receivable, net</a>                                      | 182      | 54       | (44)     |
| <a href="#">Unbilled receivables, net</a>                                     | (215)    | 247      | (646)    |
| <a href="#">Inventoried costs, net</a>                                        | (358)    | (220)    | (205)    |
| <a href="#">Prepaid expenses and other assets</a>                             | 35       | (86)     | 2        |
| <a href="#">Accounts payable and other liabilities</a>                        | (513)    | 519      | 572      |
| <a href="#">Income taxes payable, net</a>                                     | 1,143    | (658)    | (279)    |
| <a href="#">Other, net</a>                                                    | 61       | (8)      | 46       |
| <a href="#">Net cash provided by operating activities</a>                     | 4,388    | 3,875    | 2,901    |

**Investing activities**

|                                                                            |         |         |         |
|----------------------------------------------------------------------------|---------|---------|---------|
| <a href="#">Capital expenditures</a>                                       | (1,767) | (1,775) | (1,435) |
| <a href="#">Proceeds from sale of equipment to a customer</a>              | 0       | 0       | 155     |
| <a href="#">Proceeds from Sale, Maturity and Collection of Investments</a> | 0       | 197     | 0       |
| <a href="#">Other, net</a>                                                 | 18      | (4)     | 39      |
| <a href="#">Net cash used in investing activities</a>                      | (1,749) | (1,582) | (1,241) |

**Financing activities**

|                                                                             |          |          |          |
|-----------------------------------------------------------------------------|----------|----------|----------|
| <a href="#">Net proceeds from issuance of long-term debt</a>                | 2,495    | 1,995    | 0        |
| <a href="#">Payments of long-term debt</a>                                  | 0        | (1,050)  | 0        |
| <a href="#">Common stock repurchases</a>                                    | (2,514)  | (1,500)  | (1,504)  |
| <a href="#">Cash dividends paid</a>                                         | (1,186)  | (1,116)  | (1,052)  |
| <a href="#">Payments of employee taxes withheld from share-based awards</a> | (58)     | (52)     | (50)     |
| <a href="#">Other, net</a>                                                  | (132)    | (38)     | (7)      |
| <a href="#">Net cash used in financing activities</a>                       | (1,395)  | (1,761)  | (2,613)  |
| <a href="#">Increase (decrease) in cash and cash equivalents</a>            | 1,244    | 532      | (953)    |
| <a href="#">Cash and cash equivalents, beginning of year</a>                | 3,109    | 2,577    | 3,530    |
| <a href="#">Cash and cash equivalents, end of period</a>                    | \$ 4,353 | \$ 3,109 | \$ 2,577 |

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**Consolidated  
Statements of  
Changes in  
Shareholders' Equity -  
USD (\$)  
\$ in Millions**

**Total Common stock Paid-in capital Retained earnings Accumulated other comprehensive loss**

|                                                                     |           |        |           |           |
|---------------------------------------------------------------------|-----------|--------|-----------|-----------|
| <a href="#">Beginning of year at Dec. 31, 2021</a>                  | \$ 156    | \$ 0   | \$ 12,913 | \$ (143)  |
| <a href="#">Common stock repurchased</a>                            | (4)       |        | (1,497)   |           |
| <a href="#">Shares issued for employee stock awards and options</a> | 1         |        | 52        |           |
| <a href="#">Net earnings</a>                                        | \$ 4,896  |        | 4,896     |           |
| <a href="#">Dividends declared</a>                                  |           |        | (1,052)   |           |
| <a href="#">Other comprehensive (loss) income, net of tax</a>       | (10)      |        |           | (10)      |
| <a href="#">End of year at Dec. 31, 2022</a>                        | \$ 15,312 | 153    | 0         | 15,312    |
| <a href="#">Cash dividends declared per share</a>                   | \$ 6.76   |        |           | (153)     |
| <a href="#">Common stock repurchased</a>                            |           | (3)    |           | (1,519)   |
| <a href="#">Shares issued for employee stock awards and options</a> |           | 0      |           | 38        |
| <a href="#">Net earnings</a>                                        | \$ 2,056  |        | 2,056     |           |
| <a href="#">Dividends declared</a>                                  |           |        | (1,114)   |           |
| <a href="#">Other comprehensive (loss) income, net of tax</a>       | 25        |        |           | 25        |
| <a href="#">End of year at Dec. 31, 2023</a>                        | \$ 14,795 | 150    | 0         | 14,773    |
| <a href="#">Cash dividends declared per share</a>                   | \$ 7.34   |        |           | (128)     |
| <a href="#">Common stock repurchased</a>                            |           | (5)    |           | (2,510)   |
| <a href="#">Shares issued for employee stock awards and options</a> |           | 0      |           | 45        |
| <a href="#">Net earnings</a>                                        | \$ 4,174  |        | 4,174     |           |
| <a href="#">Dividends declared</a>                                  |           |        | (1,185)   |           |
| <a href="#">Other comprehensive (loss) income, net of tax</a>       | (24)      |        |           | (24)      |
| <a href="#">End of year at Dec. 31, 2024</a>                        | \$ 15,290 | \$ 145 | \$ 0      | \$ 15,297 |



Summary of  
Significant  
Accounting Policies  
Organization,  
Consolidation and  
Presentation of  
Financial Statements  
[Abstract]  
Summary of Significant  
Accounting Policies

12 Months Ended  
Dec. 31, 2024

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations

Northrop Grumman Corporation is a leading global aerospace and defense technology company. We deliver a broad range of products, services and solutions to U.S. and international customers, and principally to the U.S. Department of Defense and intelligence community. Our broad portfolio is aligned to support national security priorities and our solutions equip our customers with capabilities they need to connect, protect and advance humanity.

The company is a leading provider of space systems, military aircraft, missile defense, advanced weapons and long-range fires capabilities, mission systems, networking and communications, strategic deterrence systems, and breakthrough technologies, such as advanced computing, microelectronics and cyber. We are focused on competing and winning programs that enable continued growth, performing on our commitments and affordably delivering capability our customers need. With the investments we've made in advanced technologies, combined with our talented workforce and digital transformation capabilities, Northrop Grumman is well positioned to meet our customers' needs today and in the future.

Principles of Consolidation and Reporting

The consolidated financial statements (the "financial statements") include the accounts of Northrop Grumman and its subsidiaries and joint ventures or other investments for which we consolidate the financial results. Intercompany accounts, transactions and profits are eliminated in consolidation. Investments in equity securities and joint ventures where the company has significant influence, but not control, are accounted for using the equity method.

The financial statements are prepared in conformity with U.S. GAAP and in accordance with the rules of the SEC. The financial statements include adjustments of a normal recurring nature considered necessary by management for a fair presentation of the company's consolidated financial position, results of operations and cash flows. For classification of certain current assets and liabilities, we consider the duration of our customer contracts when defining our operating cycle, which is generally longer than one year.

Effective July 1, 2024, the company realigned the Strategic Deterrent Systems (SDS) division, which includes the Ground-Based Strategic Deterrent ("Sentinel") program, from Space Systems to Defense Systems. This realignment is reflected in the financial information contained in this report.

*Subsequent Realignment* - Effective January 1, 2025, the company realigned the Strike and Surveillance Aircraft Solutions (SSAS) business unit from Defense Systems to Aeronautics Systems. This realignment is not reflected in the financial information contained in this report; it will be reflected in the company's operating results beginning in the first quarter of 2025.

Accounting Estimates

Preparation of the financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements, as well as the reported amounts of sales and expenses during the reporting period. Estimates have been prepared using the most current and best available information; however, actual results could differ materially from those estimates.

Revenue Recognition

The majority of our sales are derived from long-term contracts with the U.S. government for the development or production of goods, the provision of services, or a combination of both. The company classifies sales as product or service based on the predominant attributes of each performance obligation.

The company recognizes revenue for each separately identifiable performance obligation in a contract representing a promise to transfer a distinct good or service to a customer. In most cases, goods and services provided under the company's contracts are accounted for as single performance obligations due to the complex and integrated nature of our products and services. These contracts generally require significant integration of a group of goods and/or services to deliver a combined output. In some contracts, the company provides multiple distinct goods or services to a customer, most commonly when a contract covers multiple phases of the product life cycle (e.g., development, production, sustainment, etc.). In those cases, the company accounts for the distinct contract deliverables as separate performance obligations and allocates the transaction price to each performance obligation based on its relative standalone selling price, which is generally estimated using cost plus a reasonable margin. Warranties are provided on certain contracts, but do not typically provide for services beyond standard assurances and are therefore not considered to be separate performance obligations. Assets recognized from the costs to obtain or fulfill a contract are not material.

The company recognizes revenue as control is transferred to the customer, either over time or at a point in time. In general, our U.S. government contracts contain termination for convenience and/or other clauses that generally provide the customer rights to goods produced and/or in-process. Similarly, our non-U.S. government contracts generally contain contractual termination clauses or entitle the company to payment for work performed to date for goods and services that do not have an alternative use. For most of our contracts, control is effectively transferred during the period of performance, so we generally recognize revenue over time using the cost-to-cost method (cost incurred relative to total cost estimated at completion). The company believes this represents the most appropriate measurement towards satisfaction of its performance obligations. Revenue for contracts in which the control of goods produced does not transfer until delivery to the customer is recognized at a point in time (i.e., typically upon delivery).

Contracts are often modified for changes in contract specifications or requirements, which may result in scope and/or price changes. Most of the company's contract modifications are for goods or services that are not distinct in the context of the contract and are therefore accounted for as part of the original performance obligation through a cumulative EAC adjustment.

Contract Estimates

Use of the cost-to-cost method requires us to make reasonably dependable estimates regarding the revenue and cost associated with the design, manufacture and delivery of our products and services. The company estimates profit on these contracts as the difference between total estimated sales and total estimated cost at completion and recognizes that profit as costs are incurred. Significant judgment is used to estimate total sales and cost at completion.

Contract sales may include estimates of variable consideration, including cost or performance incentives (such as award and incentive fees), un-priced change orders, REAs and contract claims. Variable consideration is included in total estimated sales to the extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. We estimate variable consideration as the most likely amount to which we expect to be entitled.

We recognize changes in estimated contract sales or costs and the resulting changes in contract profit on a cumulative basis. Cumulative EAC adjustments represent the cumulative effect of the changes on current and prior periods; sales and operating margins in future periods are recognized as if the revised estimates had been used since contract inception. If it is determined that a loss is expected to result on an individual performance obligation, the entire amount of the estimable future loss, including an allocation of G&A costs, is charged against income in the period the loss is identified.

B-21 Program

During the fourth quarter of 2023, we recognized a projected loss of \$1.56 billion across the five LRIP options of the B-21 program. As of December 31, 2024, the remaining loss accrual is \$1.3 billion, which is included in Other current liabilities.

Net EAC Adjustments

The following table presents the effect of aggregate net EAC adjustments:

| \$ in millions, except per share data     | Year Ended December 31 |        |        |  |
|-------------------------------------------|------------------------|--------|--------|--|
|                                           | 2024                   | 2023   | 2022   |  |
| Revenue                                   | \$ 396                 | \$ 298 | \$ 447 |  |
| Operating income                          | 350                    | 84     | 360    |  |
| Net earnings <sup>(1)</sup>               | 277                    | 66     | 284    |  |
| Diluted earnings per share <sup>(1)</sup> | 1.88                   | 0.43   | 1.83   |  |

<sup>(1)</sup> Based on a 21% federal statutory tax rate.

EAC adjustments on a single performance obligation can have a significant effect on the company's financial statements. When such adjustments occur, we generally disclose the nature, underlying conditions and financial impact of the adjustments. During the third quarter of 2024, we recorded a \$39 million favorable EAC adjustment on the HALO program at Space Systems related to the resolution of an engineering change proposal (ECP) as previously disclosed. During 2023, we recorded a \$143 million unfavorable EAC adjustment on the first LRIP lot of the B-21 program at Aeronautics Systems and \$100 million of unfavorable EAC adjustments on the HALO program at Space Systems. During 2022, we recorded \$133 million of favorable EAC adjustments on the EMD phase of the

B-21 program at Aeronautics Systems. No other such adjustments were significant to the financial statements during the years ended December 31, 2024, 2023 and 2022.

Backlog

Backlog represents the future sales we expect to recognize on firm orders received by the company and is equivalent to the company's remaining performance obligations at the end of each period. It comprises both funded backlog (firm orders for which funding is authorized and appropriated) and unfunded backlog. Unexercised contract options and IDIQ contracts are not included in backlog until the time an option or IDIQ task order is exercised or awarded.

Company backlog as of December 31, 2024 was \$91.5 billion. Of our December 31, 2024 backlog, we expect to recognize approximately 40 percent as revenue over the next 12 months and 65 percent as revenue over the next 24 months, with the remainder to be recognized thereafter.

During 2024, the company reduced unfunded backlog by \$1.6 billion and \$0.7 billion related to terminations for convenience in our restricted space business and on the NGI program at Space Systems, respectively.

Contract Assets and Liabilities

For each of the company's contracts, the timing of revenue recognition, customer billings, and cash collections results in a net contract asset or liability at the end of each reporting period. Fixed-price contracts are typically billed to the customer either using progress payments, whereby amounts are billed monthly as costs are incurred or work is completed, or performance based payments, which are based upon the achievement of specific, measurable events or accomplishments defined and valued at contract inception. Cost-type contracts are typically billed to the customer on a monthly or semi-monthly basis.

Contract assets are equivalent to and reflected as Unbilled receivables in the consolidated statements of financial position and are primarily related to long-term contracts where revenue recognized under the cost-to-cost method exceeds amounts billed to customers. Unbilled receivables are classified as current assets and include amounts that may be billed and collected beyond one year due to the long-cycle nature of many of our contracts. Accumulated contract costs in unbilled receivables include costs such as direct production costs, factory and engineering overhead, production tooling costs, and allowable G&A. Unbilled receivables also include certain estimates of variable consideration described above. These contract assets are not considered a significant financing component of the company's contracts as the payment terms are intended to protect the customer in the event the company does not perform on its obligations under the contract.

Contract liabilities are equivalent to and reflected as Advance payments and billings in excess of costs incurred in the consolidated statements of financial position. Certain customers make advance payments prior to the company's satisfaction of its obligations on the contract. These amounts are recorded as contract liabilities until such obligations are satisfied, either over time as costs are incurred or at a point in time when deliveries are made. Contract liabilities are not a significant financing component as they are generally utilized to pay for contract costs within a one-year period or are used to ensure the customer meets contractual requirements.

Net contract assets are as follows:

| \$ in millions                                           | December 31, 2024 | December 31, 2023 | \$ Change | % Change |
|----------------------------------------------------------|-------------------|-------------------|-----------|----------|
| Unbilled receivables, net                                | \$ 5,908          | \$ 5,693          | 215       | 4 %      |
| Advance payments and amounts in excess of costs incurred | (4,070)           | (4,193)           | 123       | (3)%     |
| Net contract assets                                      | \$ 1,838          | \$ 1,500          | 338       | 23 %     |

Changes in the company's contract assets and liabilities primarily result from timing differences between revenue recognition and customer billings and/or payments. Net contract assets as of December 31, 2024 increased 23 percent from the prior year, primarily due to the burn down of advances on certain Aeronautics Systems programs and an increase in unbilled receivables on several programs at Space Systems.

The amount of revenue recognized for the years ended December 31, 2024, 2023 and 2022 that was included in the contract liability balance at the beginning of each year was \$3.6 billion, \$3.1 billion and \$2.4 billion, respectively.

Disaggregation of Revenue

See Note 15 for information regarding the company's sales by customer type, contract type and geographic region for each of our segments. We believe those categories best depict how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors.

General and Administrative Expenses

In accordance with applicable FAR and CAS requirements, most general management and corporate expenses incurred at the segment and corporate locations are considered allowable and allocable costs to our U.S. government contracts. Allowable and allocable G&A costs, including independent research and development (IR&D) and bid and proposal (B&P) costs, are allocated on a systematic basis to contracts in progress and are included as a component of total estimated contract costs.

Research and Development

Company-sponsored research and development activities primarily include efforts related to government programs. Company-sponsored IR&D expenses totaled \$1.1 billion, \$1.2 billion and \$1.2 billion in 2024, 2023 and 2022, respectively, which represented 2.7 percent, 3.0 percent and 3.3 percent of total sales, respectively. Customer-funded research and development activities are charged directly to the related contracts.

Income Taxes

Provisions for federal and foreign income taxes are calculated on reported earnings before income taxes based on current tax law and include the cumulative effect of any changes in tax rates from those used previously in determining deferred tax assets and liabilities. Such provisions differ from the amounts currently payable because certain items of income and expense are recognized in different periods for financial reporting purposes than for income tax purposes. The company recognizes federal and foreign interest accrued related to unrecognized tax benefits in income tax expense. Federal tax penalties are also recognized as a component of income tax expense.

In accordance with applicable FAR and CAS requirements, current state and local income and franchise taxes are generally considered allowable and allocable costs to our U.S. government contracts and are, therefore, recorded in operating costs and expenses. The company generally recognizes changes in deferred state taxes and unrecognized state tax benefits in unallocated corporate expenses.

Uncertain tax positions reflect the company's expected treatment of tax positions taken in a filed tax return, or planned to be taken in a future tax return or claim. Until these positions are sustained by the taxing authorities or the statute of limitations concerning such issues lapses, the company does not generally recognize the tax benefits resulting from such positions and reports the tax effects as a liability for uncertain tax positions in its consolidated statements of financial position.

**Cash and Cash Equivalents**

Cash and cash equivalents are comprised of cash in banks and highly liquid instruments with original maturities of three months or less, primarily consisting of bank time deposits and investments in institutional money market funds. Cash in bank accounts often exceeds federally insured limits.

**Fair Value of Financial Instruments**

The company measures the fair value of its financial instruments using observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions.

These two types of inputs create the following fair value hierarchy:

Level 1 - Quoted prices for identical instruments in active markets.

Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 - Significant inputs to the valuation model are unobservable.

The company holds a portfolio of marketable securities to partially fund non-qualified employee benefit plans. A portion of these securities are held in common/collective trust funds and are measured at fair value using NAV per share as a practical expedient. Marketable securities accounted for as trading are recorded at fair value on a recurring basis and are included in Other non-current assets in the consolidated statements of financial position. Changes in unrealized gains and losses on trading securities are included in Other, net in the consolidated statements of earnings and comprehensive income. Investments in held-to-maturity instruments with original maturities greater than three months are recorded at amortized cost.

Derivative financial instruments are recognized as assets or liabilities in the financial statements and measured at fair value on a recurring basis. Changes in the fair value of derivative financial instruments that are designated as fair value hedges are recorded in Other, net in the consolidated statements of earnings and comprehensive income, while changes in the fair value of derivative financial instruments that are designated as cash flow hedges are recorded as a

component of other comprehensive income until the hedged transaction is recognized in earnings. For derivative financial instruments not designated as hedging instruments, gains or losses resulting from changes in the fair value are reported in Other, net in the consolidated statements of earnings and comprehensive income.

The company uses derivative financial instruments to manage its exposure to foreign currency exchange risk related to receipts from customers and payments to suppliers denominated in foreign currencies (i.e., foreign currency forward contracts). For foreign currency forward contracts, where model-derived valuations are appropriate, the company utilizes the income approach to determine the fair value using internal models based on observable market inputs such as forward rates, interest rates, our own credit risk and our counterparties' credit risks.

The company does not use derivative financial instruments for trading or speculative purposes, nor does it use leveraged financial instruments. Credit risk related to derivative financial instruments is considered minimal and is managed through the use of multiple counterparties with high credit standards and periodic settlements of positions, as well as by entering into master netting agreements with most of our counterparties.

**Inventoried Costs**

The company records inventoried costs at the lower of cost or net realizable value. Inventoried costs are categorized into raw materials, work in process, and finished goods. Raw materials are recognized using the average cost method and are generally included in contract cost when allocated to specific contracts. Work in process primarily consists of a) costs associated with specific anticipated contracts or costs incurred in excess of existing contract requirements, which are probable of recovery, and b) costs associated with unsatisfied performance obligations on contracts accounted for using point in time revenue recognition. Finished goods primarily consists of inventory maintained in support of sustainment contracts.

Inventoried costs include direct production costs, factory and engineering overhead, production tooling costs, and allowable G&A. G&A included in Inventoried costs, net was \$100 million and \$65 million as of December 31, 2024 and 2023, respectively. Inventoried costs are classified as current assets and include amounts related to contracts having production cycles longer than one year due to the long-cycle nature of our business.

**Cash Surrender Value of Life Insurance Policies**

The company maintains whole life and split-dollar life insurance policies primarily on former officers and executives. Whole life insurance policies are recorded at their cash surrender value as determined by the insurance carrier, and split-dollar life insurance policies are recorded at the lesser of their cash surrender value or premiums paid. These policies are utilized as a partial funding source for deferred compensation and other non-qualified employee retirement plans. As of December 31, 2024 and 2023, the carrying values associated with these policies were \$416 million and \$399 million, respectively, and are recorded in Other non-current assets in the consolidated statements of financial position.

**Property, Plant and Equipment**

Property, plant and equipment (PP&E) are depreciated over the estimated useful lives of individual assets. Machinery and other equipment is primarily depreciated using declining-balance methods. The other asset categories are generally depreciated using the straight-line method. Depreciation expense is generally an allowable and allocable cost in accordance with applicable FAR and CAS requirements and is recorded in the same segment where the related assets are held. However, the additional depreciation expense related to the step-up in fair value of PP&E acquired through business combinations is recorded in unallocated corporate expense within operating income as such depreciation is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. Major classes of PP&E and their useful lives are as follows:

|                                             | December 31               |             |                |             |
|---------------------------------------------|---------------------------|-------------|----------------|-------------|
| <i>Useful life in years, \$ in millions</i> | <i>Useful Life</i>        | <b>2024</b> |                | <b>2023</b> |
| Land and land improvements                  | Up to 40 <sup>(1)</sup>   | \$          | <b>782</b>     | \$ 742      |
| Buildings and improvements                  | Up to 45                  |             | <b>4,031</b>   | 3,605       |
| Machinery and other equipment               | Up to 20                  |             | <b>10,389</b>  | 9,641       |
| Capitalized software costs                  | 3-5                       |             | <b>779</b>     | 553         |
| Leasehold improvements                      | Lease Term <sup>(2)</sup> |             | <b>3,288</b>   | 3,076       |
| Property, plant and equipment, at cost      |                           |             | <b>19,269</b>  | 17,617      |
| Accumulated depreciation                    |                           |             | <b>(8,733)</b> | (7,964)     |
| Property, plant and equipment, net          |                           | \$          | <b>10,536</b>  | \$ 9,653    |

<sup>(1)</sup> Land is not a depreciable asset.

<sup>(2)</sup> Leasehold improvements are depreciated over the shorter of the useful life of the asset or lease term.

During the fourth quarter of 2020, the company completed a sale of equipment to a customer on a restricted Aeronautics Systems program for \$444 million. The company previously intended to use the equipment for internal purposes so we recognized the acquisition costs as capital expenditures and included the equipment in PP&E. As we regularly sell this type of equipment to customers in the ordinary course of business, we recorded the sale as a revenue transaction and included the net book value of the equipment in Operating costs and expenses. Although we generally classify proceeds from revenue transactions as cash inflows from operating activities, we recognized the proceeds from this transaction as cash inflows from investing activities, consistent with our prior recognition of the cost to acquire the equipment as capital expenditures. The company received the final cash payment of \$155 million related to the equipment sale during 2022 and included it in Proceeds from sale of equipment to a customer in the consolidated statements of cash flows.

During the year ended December 31, 2022, the company acquired \$46 million of internal use software through long-term financing directly with the supplier. The software was recorded in PP&E as a non-cash investing activity and the related liability was recorded in long-term debt as a non-cash financing activity. During the year ended December 31, 2023, the company received lease incentives for landlord funded leasehold improvements of \$55 million related to Space Systems real estate leases, which were recorded in PP&E and included in non-cash investing activities.

On December 28, 2022 the company acquired certain leased land in exchange for company-owned land, which had been used previously for production-related activities at Space Systems. The exchange was accounted for as a nonmonetary transaction, and the acquired land, valued at approximately \$155 million, was recorded in PP&E as a non-cash investing activity. The transaction resulted in a \$96 million gain, which was reflected in operating costs and expenses in the consolidated statements of earnings and comprehensive income.

Non-cash investing activities also include capital expenditures incurred but not yet paid of \$242 million, \$75 million and \$113 million as of December 31, 2024, 2023 and 2022, respectively.

**Sale of Minority Investment**

In July 2023, the company sold its minority investment in an Australian business for AUD \$235 million (the equivalent of \$157 million upon settlement). The sale resulted in a pre-tax gain of \$97 million, which is reflected in Other, net on the consolidated statements of earnings and comprehensive income for the year ended December 31, 2023. Proceeds from the sale are included in investing activities on the consolidated statement of cash flows for the year ended December 31, 2023.

**Goodwill and Other Purchased Intangible Assets**

Goodwill and other purchased intangible asset balances are included in the identifiable assets of their assigned business segment. However, the company includes the amortization of other purchased intangible assets in unallocated corporate expense within operating income as such amortization is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. The company's customer-related intangible assets are generally amortized over their respective useful lives based on the pattern in which the future economic benefits of the intangible assets are expected to be consumed. Other intangible assets are generally amortized on a straight-line basis over their estimated useful lives.

**Leases**

The company leases certain buildings, land and equipment. At contract inception, we determine whether a contract is or contains a lease and whether the lease should be classified as an operating or finance lease. Operating lease balances are included in Operating lease right-of-use assets. Other current liabilities, and Operating lease liabilities in our consolidated statements of financial position.

The company recognizes operating lease right-of-use assets and operating lease liabilities based on the present value of the future minimum lease payments over the lease term at commencement date. We use our incremental borrowing rate based on the information available at commencement date to determine the present value of future payments and the appropriate lease classification. Many of our leases include renewal options aligned with our contract terms. We define the initial lease term to include renewal options determined to be reasonably certain. We do not recognize a right-of-use asset and a lease liability for leases with an initial term of 12 months or less; we recognize lease expense for these leases on a straight-line basis over the lease term. We elected the practical expedient to not separate lease components from nonlease components and applied that practical expedient to all material classes of leased assets.

Many of the company's real property lease agreements contain incentives for tenant improvements, rent holidays or rent escalation clauses. For tenant improvement incentives received, if the incentive is determined to be a leasehold improvement owned by the company, we generally record the incentives as a reduction to the right-of-use asset, which reduces rent expense over the lease term. For rent holidays and rent escalation clauses during the lease term, the company records rental expense on a straight-line basis over the term of the lease. For these lease incentives, the company uses the date of initial possession as the commencement date, which is generally when the company is given the right of access to the space and begins to make improvements in preparation for intended use.

Finance leases are not material to our consolidated financial statements and the company is not a lessor in any material arrangements. We do not have any material restrictions or covenants in our lease agreements, sale-leaseback transactions, land easements or residual value guarantees.

**Litigation, Commitments and Contingencies**

We accrue for litigation, commitments and contingencies when management, after considering the facts and circumstances of each matter as then known to management, has determined it is probable a liability will be found to have been incurred and the amount of the loss can be reasonably estimated. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, the low end of the range is recorded. Legal fees are generally expensed as incurred. Due to the inherent uncertainties surrounding gain contingencies, we generally do not recognize potential gains until realized.

**Environmental Costs**

We accrue for environmental liabilities when management determines that, based on the facts and circumstances known to the company, it is probable the company will incur costs to address environmental impacts and the costs are reasonably estimable. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, we record the low end of the range. The company typically projects environmental costs for up to 30 years, records environmental liabilities on an undiscounted basis, and excludes asset retirement obligations and certain legal costs. At sites involving multiple parties, we accrue environmental liabilities based upon our expected share of liability, considering the financial viability of other liable parties.

**Retirement Benefits**

The company sponsors various defined benefit pension plans and defined contribution retirement plans covering substantially all employees. In most cases, our defined contribution plans provide for a company match of employee contributions. The company also provides postretirement benefits other than pensions to eligible retirees and qualifying dependents, consisting principally of health care and life insurance benefits.

The liabilities, unamortized prior service credits and annual income or expense of the company's defined benefit pension and OPB plans are determined using methodologies that involve several actuarial assumptions.

Because U.S. government regulations provide for the costs of pension and OPB plans to be charged to our contracts in accordance with applicable FAR and CAS requirements, we calculate retiree benefit plan costs under both FAS and CAS methods. While both FAS and CAS recognize a normal service cost component in measuring periodic pension cost, there are differences in the way the components of annual pension costs are calculated under each method. Measuring plan obligations under FAS and CAS also includes different assumptions and models, such as in estimating returns on plan assets, calculating interest expense and the periods over which gains/losses related to pension assets and actuarial changes are recognized. As a result, annual retiree benefit plan expense amounts for

FAS are different from the amounts for CAS in any given reporting period even though the ultimate cost of providing benefits over the life of the plans is the same under each method. CAS retiree benefit plan costs are charged to contracts and are included in segment operating income, and the difference between the service cost component of FAS expense and total CAS expense (the "FAS/CAS operating adjustment") is recorded in operating income at the consolidated company level. Not all net periodic pension expense is recognized in net earnings in the year incurred because it is allocated as production costs and a portion remains in inventory at the end of any given reporting period.

Actual gains and losses are immediately recognized in net periodic benefit cost for FAS through MTM benefit (expense) upon annual remeasurement in the fourth quarter, or on an interim basis as triggering events warrant remeasurement. Prior service credits are recognized as a component of Accumulated other comprehensive loss and amortized into earnings in future periods.

Stock Compensation

The company's stock compensation plans are classified as equity plans. Compensation expense for stock awards is measured at the grant date based on the fair value of the award and is recognized over the vesting period (generally three years), net of estimated forfeitures. The company issues stock awards in the form of restricted performance stock rights and restricted stock rights. The fair value of stock awards and performance stock awards is determined based on the closing market price of the company's common stock on the grant date. The fair value of market-based stock awards is determined at the grant date using a Monte Carlo simulation model. For purposes of measuring compensation expense for performance awards, the number of shares ultimately expected to vest is estimated at each reporting date based on management's expectations regarding the relevant performance criteria. At each reporting date, the number of shares used to calculate compensation expense and diluted earnings per share is adjusted to reflect the number ultimately expected to vest.

Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss, net of tax, are as follows:

| \$ in millions                             | December 31 |          |
|--------------------------------------------|-------------|----------|
|                                            | 2024        | 2023     |
| Cumulative translation adjustment          | \$ (140)    | \$ (138) |
| Other, net                                 | (12)        | 10       |
| Total accumulated other comprehensive loss | \$ (152)    | \$ (128) |

Related Party Transactions

For all periods presented, the company had no material related party transactions.

Accounting Standards Updates

On November 27, 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2023-07 *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*. Among other new disclosure requirements, ASU 2023-07 requires companies to disclose significant segment expenses that are regularly provided to the chief operating decision maker. We adopted the standard effective January 1, 2024 and applied the disclosure requirements retrospectively to all prior periods presented in the financial statements. Adoption of ASU 2023-07 did not have an impact on the company's consolidated financial position, results of operations and/or cash flows.

On December 14, 2023, the FASB issued ASU No. 2023-09 *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. ASU 2023-09 requires companies to disclose, on an annual basis, specific categories in the effective tax rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. In addition, ASU 2023-09 requires companies to disclose additional information about income taxes paid. ASU 2023-09 will be effective for annual periods beginning January 1, 2025 and will be applied on a prospective basis with the option to apply the standard retrospectively. We are evaluating the disclosure impact of ASU 2023-09; however, the standard will not have an impact on the company's consolidated financial position, results of operations and/or cash flows.

On November 4, 2024, the FASB issued ASU No. 2024-03 *Disaggregation of Income Statement Expenses (Subtopic 220-40)*. ASU 2024-03 requires disaggregation of certain expense captions into specified categories in disclosures within the footnotes to the financial statements. ASU 2024-03 will be effective for annual periods beginning January 1, 2027 and interim periods beginning January 1, 2028 and will be applied on a prospective basis with the option to apply the standard retrospectively. We are evaluating the disclosure impact of ASU 2023-09; however, we do not expect the standard will have a material impact on the company's consolidated financial position, results of operations and/or cash flows.

Other accounting standards updates adopted and/or issued, but not effective until after December 31, 2024, are not expected to have a material effect on the company's consolidated financial position, annual results of operations and/or cash flows.

Cash Surrender Value of Life Insurance Policies

The company maintains whole life and split-dollar life insurance policies primarily on former officers and executives. Whole life insurance policies are recorded at their cash surrender value as determined by the insurance carrier, and split-dollar life insurance policies are recorded at the lesser of their cash surrender value or premiums paid. These policies are utilized as a partial funding source for deferred compensation and other non-qualified employee retirement plans. As of December 31, 2024 and 2023, the carrying values associated with these policies were \$416 million and \$399 million, respectively, and are recorded in Other non-current assets in the consolidated statements of financial position.

[Life Settlement Contracts, Disclosure](#)

[Investments in Debt and Equity Instruments, Cash and Cash Equivalents, Unrealized and Realized Gains \(Losses\)](#)

[Related Party Transactions Disclosure](#)

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[Earnings Per Share, Share Repurchases and Dividends on Common Stock](#)

[Earnings Per Share \[Abstract\]](#)

[Earnings Per Share, Share Repurchases and Dividends on Common Stock](#)

12 Months Ended

Dec. 31, 2024

2. EARNINGS PER SHARE, SHARE REPURCHASES AND DIVIDENDS ON COMMON STOCK

Basic Earnings Per Share

We calculate basic earnings per share by dividing net earnings by the weighted-average number of shares of common stock outstanding during each period.

Diluted Earnings Per Share

Diluted earnings per share include the dilutive effect of awards granted to employees under stock-based compensation plans. The dilutive effect of these securities totaled 0.3 million, 0.5 million and 0.7 million shares for the years ended December 31, 2024, 2023 and 2022, respectively.

Share Repurchases

Share Repurchase Programs

On January 25, 2021, the company's board of directors authorized a share repurchase program of up to \$3.0 billion in share repurchases of the company's common stock (the "2021 Repurchase Program"). Repurchases under the 2021 Repurchase Program commenced in October 2021 and were completed in April 2023.

On January 24, 2022, the company's board of directors authorized a new share repurchase program of up to an additional \$2.0 billion in share repurchases of the company's common stock (the "2022 Repurchase Program"). Repurchases under the 2022 Repurchase Program commenced in April 2023 and were completed in February 2024.

On December 6, 2023, the company's board of directors authorized a new share repurchase program of up to an additional \$2.5 billion in share repurchases of the company's common stock (the "2023 Repurchase Program"). Repurchases under the 2023 Repurchase Program commenced in February 2024 upon completion of the 2022 Repurchase Program. As of December 31, 2024, repurchases under the 2023 Repurchase Program totaled \$1.4 billion; \$1.1 billion remained under this share repurchase authorization. By its terms, the 2023 Repurchase Program will expire when we have used all authorized funds for repurchases.

On December 11, 2024, the company's board of directors authorized a new share repurchase program of up to an additional \$3.0 billion in share repurchases of the company's common stock (the "2024 Repurchase Program"). Repurchases under the 2024 Repurchase Program will commence upon completion of the 2023 Repurchase Program and will expire when we have used all authorized funds for repurchases. As of December 31, 2024, there have been no repurchases under the 2024 Repurchase Program and the company's total outstanding share repurchase authorization was \$4.1 billion.

Accelerated Share Repurchase Agreements

During the first quarter of 2023, the company entered into an accelerated share repurchase (ASR) agreement with Bank of America, N.A. (Bank of America) to repurchase \$500 million of the company's common stock as part of the 2021 and 2022 Repurchase Programs. Under the agreement, we made a payment of \$500 million to Bank of America and received an initial delivery of 0.9 million shares valued at \$400 million that were immediately canceled by the company. The remaining balance of \$100 million was settled on April 27, 2023 with a final delivery of 0.2 million shares from Bank of America. The final average purchase price was \$458.28 per share.

During the first quarter of 2024, the company entered into an ASR agreement with Morgan Stanley & Co. LLC (Morgan Stanley) to repurchase \$1.0 billion of the company's common stock as part of the 2022 Repurchase Program. Under the agreement, we made a payment of \$1.0 billion to Morgan Stanley and received an initial delivery of 1.8 million shares valued at \$800 million that were immediately canceled by the company. The remaining balance of \$200 million was settled on May 1, 2024 with a final delivery of 0.4 million shares from Morgan Stanley. The final average purchase price was \$455.73 per share.

Share repurchases take place from time to time, subject to market and regulatory conditions and management's discretion, in the open market or in privately negotiated transactions. The company retires its common stock upon repurchase and, in the periods presented, has not made any purchases of common stock other than in connection with these publicly announced repurchase programs.

The table below summarizes the company's share repurchases to date under the authorizations described above:

| Repurchase Program Authorization Date | Amount Authorized (in millions) | Total Shares Retired (in millions) | Average Price Per Share <sup>(1)</sup> | Date Completed | Shares Repurchased (in millions) |      |      |
|---------------------------------------|---------------------------------|------------------------------------|----------------------------------------|----------------|----------------------------------|------|------|
|                                       |                                 |                                    |                                        |                | Year Ended December 31           |      |      |
|                                       |                                 |                                    |                                        |                | 2024                             | 2023 | 2022 |
| January 25, 2021                      | \$ 3,000                        | 7.0                                | \$ 431.05                              | April 2023     | —                                | 1.4  | 3.3  |
| January 24, 2022 <sup>(2)</sup>       | \$ 2,000                        | 4.4                                | \$ 455.01                              | February 2024  | 2.5                              | 1.9  | —    |
| December 6, 2023                      | \$ 2,500                        | 2.9                                | \$ 472.26                              |                | 2.9                              | —    | —    |
| December 11, 2024                     | \$ 3,000                        | —                                  | \$ —                                   |                | —                                | —    | —    |
|                                       |                                 |                                    |                                        |                | 5.4                              | 3.3  | 3.3  |

<sup>(1)</sup> Beginning with the 2022 Repurchase Program, the board of directors has approved that the purchases and authorizations under our repurchase programs be exclusive of brokerage commissions and other costs of execution, including taxes. Commissions paid are included for the 2021 Repurchase Program.

<sup>(2)</sup> The 2022 Repurchase Program completed in February 2024; however, it included the \$1.0 billion ASR for which the final delivery of shares was outstanding at the end of the first quarter of 2024. On May 1, 2024, the company received a final delivery of 0.4 million shares for that ASR, which are included in the 2022 Repurchase Program authorization.

Dividends on Common Stock

In May 2024, the company increased the quarterly common stock dividend 10 percent to \$2.06 per share from the previous amount of \$1.87 per share.

In May 2023, the company increased the quarterly common stock dividend 8 percent to \$1.87 per share from the previous amount of \$1.73 per share.

In May 2022, the company increased the quarterly common stock dividend 10 percent to \$1.73 per share from the previous amount of \$1.57 per share.

[Repurchase Agreements, Resale Agreements, Securities Borrowed, and Securities Loaned Disclosure](#)

Share Repurchases

Share Repurchase Programs

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Share repurchases take place from time to time, subject to market and regulatory conditions and management's discretion, in the open market or in privately negotiated transactions. The company retires its common stock upon repurchase and, in the periods presented, has not made any purchases of common stock other than in connection with these publicly announced repurchase programs.

#### XML 28 R10.htm IDEA: XBRL DOCUMENT

##### Accounts Receivable, Net

[Receivables](#)

[\[Abstract\]](#)

[Accounts Receivable,  
Net](#)

**12 Months Ended  
Dec. 31, 2024**

#### 3. ACCOUNTS RECEIVABLE, NET

Accounts receivable, net represent amounts billed and due from customers. Substantially all accounts receivable at December 31, 2024 are expected to be collected in 2025. The company does not believe it has significant exposure to credit risk as the majority of our accounts receivable are due from the U.S. government either as the ultimate customer or in connection with foreign military sales.

Accounts receivable, net consisted of the following:

| \$ in millions                             | December 31 |          |
|--------------------------------------------|-------------|----------|
|                                            | 2024        | 2023     |
| Due from U.S. government <sup>(1)</sup>    | \$ 951      | \$ 1,184 |
| Due from international and other customers | 326         | 276      |
| Accounts receivable, gross                 | 1,277       | 1,460    |
| Allowance for expected credit losses       | (5)         | (6)      |
| Accounts receivable, net                   | \$ 1,272    | \$ 1,454 |

<sup>(1)</sup> Includes receivables due from the U.S. government associated with foreign military sales, which are contracted with and paid by the U.S. government.

#### XML 29 R11.htm IDEA: XBRL DOCUMENT

##### Unbilled Receivables, Net

[Unbilled Receivables,  
Net \[Abstract\]](#)

[Unbilled Receivables](#)

[Disclosure \[Text Block\]](#)

**12 Months Ended  
Dec. 31, 2024**

#### 4. UNBILLED RECEIVABLES, NET

Unbilled receivables, net represent revenue recognized under the cost-to-cost method that exceeds amounts billed to customers. A large majority of the company's unbilled receivables at December 31, 2024 are expected to be billed and collected in 2025. Progress and performance-based payments are reflected as an offset to the related unbilled receivable balances.

Unbilled receivables, net consisted of the following:

| \$ in millions                                                                | December 31 |           |
|-------------------------------------------------------------------------------|-------------|-----------|
|                                                                               | 2024        | 2023      |
| Due from U.S. government <sup>(1)</sup>                                       | \$ 22,871   | \$ 23,655 |
| Unbilled receivables                                                          | (17,300)    | (18,321)  |
| Progress and performance-based payments received                              | 5,571       | 5,334     |
| Total due from U.S. government                                                | 1,108       | 1,720     |
| Due from international and other customers                                    | (757)       | (1,344)   |
| Unbilled receivables                                                          | 351         | 376       |
| Progress and performance-based payments received                              | 5,922       | 5,710     |
| Total due from international and other customers                              | (14)        | (17)      |
| Unbilled receivables, net of progress and performance-based payments received | 5,908       | 5,693     |
| Allowance for expected credit losses                                          |             |           |
| Unbilled receivables, net                                                     | \$ 5,908    | \$ 5,693  |

<sup>(1)</sup> Includes unbilled receivables due from the U.S. government associated with foreign military sales, which are contracted with and paid by the U.S. government.

#### XML 30 R12.htm IDEA: XBRL DOCUMENT

##### Inventoried Costs, Net

[Inventory Disclosure](#)

[\[Abstract\]](#)

[Inventoried Costs, Net](#)

**12 Months Ended  
Dec. 31, 2024**

#### 5. INVENTORIED COSTS, NET

Inventoried costs are principally associated with contracts where the U.S. government is the primary customer, therefore the company does not believe it has significant exposure to recoverability risk related to these amounts. Inventoried costs associated with our commercial businesses, while less significant in total, are subject to a greater level of recoverability risk.

Inventoried costs, net consisted of the following:

| \$ in millions         | December 31 |          |
|------------------------|-------------|----------|
|                        | 2024        | 2023     |
| Raw materials          | \$ 293      | \$ 338   |
| Work in process        | 1,118       | 719      |
| Finished goods         | 44          | 52       |
| Inventoried costs, net | \$ 1,455    | \$ 1,109 |

Inventoried costs, net increased \$346 million, or 31 percent, largely due to an increase in costs incurred for specific anticipated contracts to reduce customer delivery lead times.

The company recorded write-downs of commercial business inventory at Space Systems for which its cost exceeded net realizable value of \$43 million during the year ended December 31, 2023. In addition, the company recognized a \$45 million reduction of inventoried costs related to the B-21 program at Aeronautics Systems during the year ended December 31, 2023.

#### XML 31 R13.htm IDEA: XBRL DOCUMENT

##### Income Taxes

[Income Tax](#)

[Disclosure \[Abstract\]](#)

[Income Taxes](#)

**12 Months Ended  
Dec. 31, 2024**

#### 6. INCOME TAXES

Federal and foreign income tax expense consisted of the following:

| \$ in millions                               | Year Ended December 31 |        |          |
|----------------------------------------------|------------------------|--------|----------|
|                                              | 2024                   | 2023   | 2022     |
| Federal income tax expense:                  |                        |        |          |
| Current                                      | \$ 628                 | \$ 949 | \$ 1,289 |
| Deferred                                     | 204                    | (670)  | (353)    |
| Total federal income tax expense             | 832                    | 279    | 936      |
| Foreign income tax expense:                  |                        |        |          |
| Current                                      | 13                     | 15     | 3        |
| Deferred                                     | (3)                    | (4)    | 1        |
| Total foreign income tax expense             | 10                     | 11     | 4        |
| Total federal and foreign income tax expense | \$ 842                 | \$ 290 | \$ 940   |

Earnings before income taxes associated with the company's foreign operations are not material in the periods presented.

Income tax expense differs from the amount computed by multiplying earnings before income taxes by the statutory federal income tax rate due to the following:

| \$ in millions                         | Year Ended December 31 |        |        |        |          |        |
|----------------------------------------|------------------------|--------|--------|--------|----------|--------|
|                                        | 2024                   |        | 2023   |        | 2022     |        |
| Income tax expense at statutory rate   | \$ 1,053               | 21.0 % | \$ 493 | 21.0 % | \$ 1,226 | 21.0 % |
| Research credit                        | (361)                  | (7.2)  | (210)  | (8.9)  | (177)    | (3.0)  |
| Foreign derived intangible income      | 13                     | 0.3    | (63)   | (2.7)  | (66)     | (1.1)  |
| Settlements with taxing authorities    | —                      | —      | (1)    | —      | (86)     | (1.5)  |
| Net interest expense                   | 145                    | 2.9    | 69     | 2.9    | 22       | 0.4    |
| Other, net                             | (8)                    | (0.2)  | 2      | 0.1    | 21       | 0.3    |
| Total federal and foreign income taxes | \$ 842                 | 16.8 % | \$ 290 | 12.4 % | \$ 940   | 16.1 % |

The 2024 ETR increased to 16.8 percent from 12.4 percent in 2023 primarily due to the impact of the prior year B-21 charge and the MTM adjustment on our ETR. The 2024 MTM benefit increased the 2024 ETR by 0.4 percentage points, whereas the prior year B-21 charge and MTM expense collectively reduced the 2023 ETR by 3.8 percentage points. The 2024 ETR also reflects a net reduction in tax reserves largely due to a recent federal court decision, partially offset by higher interest expense on unrecognized tax benefits.

The 2023 ETR decreased to 12.4 percent in 2022 primarily due to lower earnings before income taxes as a result of the B-21 charge and MTM expense, which collectively reduced the 2023 ETR by 3.8 percentage points. The 2022 MTM benefit increased the 2022 ETR by 1.2 percentage points.

Income tax payments, net of refunds received, were \$880 million, \$1.2 billion and \$1.5 billion for the years ended December 31, 2024, 2023 and 2022, respectively. Taxes receivable, which are included in Prepaid expenses and other current assets in the consolidated statements of financial position, were \$517 million and \$1.5 billion as of December 31, 2024 and 2023, respectively.

Net interest expense within the company's federal, foreign and state income tax provisions was \$164 million, \$62 million, and \$29 million for the years ended December 31, 2024, 2023, and 2022, respectively.

The Organization for Economic Co-operation and Development issued Pillar Two model rules for a global minimum tax of 15% effective January 1, 2024. While it is uncertain whether the United States will enact legislation to adopt Pillar Two, certain countries in which we operate have adopted legislation, and other countries are in the process of introducing legislation to implement Pillar Two. Pillar Two had no impact on our 2024 ETR, and we do not currently expect Pillar Two to significantly impact our ETR going forward.

##### Uncertain Tax Positions

We file income tax returns in the U.S. federal jurisdiction and in various state and foreign jurisdictions. During the fourth quarter of 2024, the company entered into an agreed RAR for certain matters related to the company's 2018-2020 federal income tax returns, largely related to our methods of accounting associated with the timing of revenue recognition and related costs under IRC Section 451(b), resulting in a \$766 million reduction to our unrecognized tax benefits and an immaterial impact to income tax expense. The matters not addressed by the agreed RAR related to the company's 2018-2020 federal tax returns are currently under Internal Revenue Service (IRS) examination.

During the second quarter of 2023, the company entered into an agreed RAR for certain matters related to the company's 2014-2017 federal income tax returns, resulting in a \$90 million reduction to

our unrecognized tax benefits and an immaterial impact to income tax expense. The matters not addressed by the agreed RAR related to the company's 2014-2017 federal income tax returns and refund claims related to its 2007-2016 federal tax returns are currently under review by the IRS Appeals Office.

In the second quarter of 2023, the California Franchise Tax Board approved a resolution of the state examination primarily related to California state apportionment in the company's 2007 to 2016 tax years, resulting in a \$95 million reduction to our unrecognized tax benefits and an \$11 million reduction to unallocated corporate expense.

Tax returns for open tax years related to state and foreign jurisdictions remain subject to examination. As state income taxes are generally considered allowable and allocable costs, any individual or aggregate state examination impacts are not expected to have a material impact on our financial results. Amounts currently subject to examination related to foreign jurisdictions are not material.

The company's unrecognized tax benefits, excluding accrued interest and penalties of \$373 million, \$305 million and \$216 million as of December 31, 2024, 2023 and 2022, respectively, are presented below:

| <i>\$ in millions</i>                                        | December 31 |          |          |
|--------------------------------------------------------------|-------------|----------|----------|
|                                                              | 2024        | 2023     | 2022     |
| Unrecognized tax benefits at beginning of the year           | \$ 1,994    | \$ 1,663 | \$ 1,630 |
| Additions based on tax positions related to the current year | 236         | 276      | 262      |
| Additions for tax positions of prior years                   | 90          | 254      | 6        |
| Reductions for tax positions of prior years                  | (106)       | (9)      | (124)    |
| Settlements with taxing authorities                          | (766)       | (189)    | (110)    |
| Other, net                                                   | (1)         | (1)      | (1)      |
| Net change in unrecognized tax benefits                      | (547)       | 331      | 33       |
| Unrecognized tax benefits at end of the year                 | \$ 1,447    | \$ 1,994 | \$ 1,663 |

The 2024 decrease in unrecognized tax benefits was primarily related to the settlement of certain matters related to the company's methods of accounting associated with the timing of revenue recognition under IRC Section 451(b) as discussed above, partially offset by additional reserves on current year tax positions related to 451(b) (prior to settlement) and research credits. It is reasonably possible that within the next 12 months the company's unrecognized tax benefits may increase by approximately \$100 million.

If the income tax benefits from these tax positions are ultimately realized, \$914 million of federal and foreign tax benefits would reduce the company's ETR.

Inclusive of accrued interest and penalties, the company's current unrecognized tax benefits of \$345 million and \$964 million as of December 31, 2024 and 2023, respectively, are included in Other current liabilities in the consolidated statements of financial position.

**Deferred Income Taxes**

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and tax purposes. Net deferred tax assets and liabilities are classified as non-current in the consolidated statements of financial position.

The tax effects of temporary differences and carryforwards that gave rise to year-end deferred federal, state and foreign tax balances, as presented in the consolidated statements of financial position, are as follows:

| <i>\$ in millions</i>                              | December 31 |          |
|----------------------------------------------------|-------------|----------|
|                                                    | 2024        | 2023     |
| <b>Deferred Tax Assets</b>                         |             |          |
| Retiree benefits                                   | \$ —        | \$ 115   |
| Capitalized research and experimental expenditures | 4,816       | 3,380    |
| Accrued employee compensation                      | 386         | 400      |
| Provisions for accrued liabilities                 | 468         | 509      |
| Inventory                                          | 36          | 279      |
| Stock-based compensation                           | 37          | 35       |
| Operating lease liabilities                        | 557         | 575      |
| Tax credits                                        | 562         | 557      |
| Other                                              | 241         | 215      |
| Gross deferred tax assets                          | 7,103       | 6,065    |
| Less: valuation allowance                          | (526)       | (517)    |
| Net deferred tax assets                            | 6,577       | 5,548    |
| <b>Deferred Tax Liabilities</b>                    |             |          |
| Retiree benefits                                   | 153         | —        |
| Goodwill                                           | 534         | 534      |
| Purchased intangibles                              | 69          | 83       |
| Property, plant and equipment, net                 | 827         | 805      |
| Operating lease right-of-use assets                | 554         | 563      |
| Contract accounting differences                    | 2,714       | 2,437    |
| Other                                              | 127         | 106      |
| Deferred tax liabilities                           | 4,978       | 4,528    |
| Total net deferred tax assets                      | \$ 1,599    | \$ 1,020 |

Realization of deferred tax assets is primarily dependent on generating sufficient taxable income in future periods. The company believes it is more-likely-than-not our net deferred tax assets will be realized.

At December 31, 2024, the company has available tax credits and unused net operating losses of \$627 million and \$318 million, respectively, that may be applied against future taxable income. The majority of tax credits and net operating losses expire between 2025 and 2047, however, some may be carried forward indefinitely. Due to the uncertainty of the realization of the tax credits and net operating losses, the company has recorded valuation allowances of \$343 million and \$42 million, respectively, as of December 31, 2024.

**Undistributed Foreign Earnings**

As of December 31, 2024, the company has accumulated undistributed earnings generated by our foreign subsidiaries and most have been taxed in the U.S. We intend to indefinitely reinvest these earnings, as well as future earnings from our foreign subsidiaries to fund our international operations. In addition, we expect future U.S. cash generation will be sufficient to meet future U.S. cash needs.

[XML 32 R14.htm IDEA: XBRL DOCUMENT](#)

**Goodwill and Other  
Purchased Intangible  
Assets**

[Goodwill and Intangible Assets  
Disclosure \[Abstract\]](#)  
[Goodwill and Intangible Assets](#)

**12 Months Ended  
Dec. 31, 2024**

**7. GOODWILL AND OTHER PURCHASED INTANGIBLE ASSETS**

**Goodwill**

Changes in the carrying amounts of goodwill for the years ended December 31, 2023 and 2024, were as follows:

| <i>\$ in millions</i>           | Aeronautics Systems |       |    |       | Defense Systems |       |    |       | Mission Systems |        |  |  | Space Systems |  |  |  | Total |
|---------------------------------|---------------------|-------|----|-------|-----------------|-------|----|-------|-----------------|--------|--|--|---------------|--|--|--|-------|
| Balance as of December 31, 2022 | \$                  | 3,467 | \$ | 4,228 | \$              | 5,881 | \$ | 3,940 | \$              | 17,516 |  |  |               |  |  |  |       |
| Other <sup>(1)</sup>            |                     | —     |    | 1     |                 | —     |    | —     |                 | —      |  |  |               |  |  |  | 1     |
| Balance as of December 31, 2023 | \$                  | 3,467 | \$ | 4,229 | \$              | 5,881 | \$ | 3,940 | \$              | 17,517 |  |  |               |  |  |  |       |
| Other <sup>(1)</sup>            |                     | —     |    | (5)   |                 | —     |    | —     |                 | (5)    |  |  |               |  |  |  |       |
| Balance as of December 31, 2024 | \$                  | 3,467 | \$ | 4,224 | \$              | 5,881 | \$ | 3,940 | \$              | 17,512 |  |  |               |  |  |  |       |

<sup>(1)</sup> Other consists primarily of adjustments for foreign currency translation.

At December 31, 2024 and 2023, accumulated goodwill impairment losses totaled \$417 million at Aeronautics Systems, \$121 million at Space Systems, and \$32 million at Defense Systems.

**Other Purchased Intangible Assets**

Net customer-related and other intangible assets are as follows:

| <i>\$ in millions</i>                              | December 31 |          |
|----------------------------------------------------|-------------|----------|
|                                                    | 2024        | 2023     |
| Gross customer-related and other intangible assets | \$ 3,371    | \$ 3,365 |
| Less accumulated amortization                      | (3,117)     | (3,060)  |
| Net customer-related and other intangible assets   | \$ 254      | \$ 305   |

Amortization expense for 2024, 2023 and 2022, was \$57 million, \$80 million and \$197 million, respectively. As of December 31, 2024, the expected future amortization of purchased intangibles for each of the next five years is as follows:

| <i>\$ in millions</i> |       |
|-----------------------|-------|
| 2025                  | \$ 45 |
| 2026                  | 42    |
| 2027                  | 31    |
| 2028                  | 31    |
| 2029                  | 31    |

[XML 33 R15.htm IDEA: XBRL DOCUMENT](#)

**Fair Value of  
Financial Instruments**  
[Fair Value Disclosures  
\[Abstract\]](#)  
[Fair Value Disclosures](#)

**12 Months Ended  
Dec. 31, 2024**

**8. FAIR VALUE OF FINANCIAL INSTRUMENTS**

The following table presents the financial assets and liabilities the company records at fair value on a recurring basis identified by the level of inputs used to determine fair value. See Note 1 for the definitions of these levels and for further information on our financial instruments.

| <i>\$ in millions</i>                  | December 31, 2024 |         |         |        | December 31, 2023 |         |         |        |
|----------------------------------------|-------------------|---------|---------|--------|-------------------|---------|---------|--------|
|                                        | Level 1           | Level 2 | Level 3 | Total  | Level 1           | Level 2 | Level 3 | Total  |
| <b>Financial Assets</b>                |                   |         |         |        |                   |         |         |        |
| Marketable securities                  | \$ 325            | \$ —    | \$ 14   | \$ 339 | \$ 321            | \$ 1    | \$ 8    | \$ 330 |
| Marketable securities valued using NAV |                   |         |         | 8      |                   |         |         | 9      |
| Total marketable securities            | 325               | —       | 14      | 347    | 321               | 1       | 8       | 339    |
| Derivatives                            | —                 | (11)    | —       | (11)   | —                 | 5       | —       | 5      |

The notional value of the company's foreign currency forward contracts at December 31, 2024 and 2023 was \$399 million and \$286 million, respectively. The portion of notional value designated as a cash flow hedge at December 31, 2024 and 2023 was \$273 million and \$162 million, respectively.

The derivative fair values and related unrealized gains/losses at December 31, 2024 and 2023 were not material.

There were no transfers of financial instruments into or out of Level 3 of the fair value hierarchy during the years ended December 31, 2024 and 2023.

The carrying value of cash and cash equivalents approximates fair value.



Debt

[Debt Disclosure \[Abstract\]](#)

[Long-Term Debt](#)

12 Months Ended  
Dec. 31, 2024

9. DEBT

Commercial Paper

The company maintains a commercial paper program that serves as a source of short-term financing with capacity to issue unsecured commercial paper notes up to \$2.5 billion. There were no commercial paper borrowings outstanding at December 31, 2024 and December 31, 2023, respectively.

Credit Facility

The company maintains a five-year senior unsecured credit facility in an aggregate principal amount of \$2.5 billion (the "2022 Credit Agreement") that matures in August 2027. The revolving credit facility established under the 2022 Credit Agreement is intended to support the company's commercial paper program and other general corporate purposes. Commercial paper borrowings reduce the amount available for borrowing under the 2022 Credit Agreement. At December 31, 2024, there were no borrowings outstanding under this facility.

The 2022 Credit Agreement contains generally customary terms and conditions, including covenants restricting the company's ability to sell all or substantially all of its assets, merge or consolidate with another entity or undertake other fundamental changes and incur liens. The company also cannot permit the ratio of its debt to capitalization (as set forth in the credit agreement) to exceed 65 percent. At December 31, 2024, the company was in compliance with all covenants under its credit agreement.

Unsecured Senior Notes

Issuance of Senior Notes

In January 2024, the company issued \$2.5 billion of unsecured senior notes for general corporate purposes, including debt repayment, share repurchases, and working capital, as follows:

- \$500 million of 4.60% senior notes due 2029 (the "2029 Notes"),
- \$850 million of 4.90% senior notes due 2034 (the "2034 Notes"), and
- \$1.15 billion of 5.20% senior notes due 2054 (the "2054 Notes").

In February 2023, the company issued \$2.0 billion of unsecured senior notes for general corporate purposes, including debt repayment, share repurchases, and working capital, as follows:

- \$1.0 billion of 4.70% senior notes due 2033 (the "2033 Notes") and
- \$1.0 billion of 4.95% senior notes due 2053 (the "2053 Notes").

We refer to the 2029 Notes, 2033 Notes, 2034 Notes, 2053 Notes and 2054 Notes, together, as the "notes." Interest on the notes is payable semi-annually in arrears. The notes are generally subject to redemption, in whole or in part, at the company's discretion at any time, or from time to time, prior to maturity at a redemption price equal to the greater of 100% of the principal amount of the notes to be redeemed or an applicable "make-whole" amount, plus accrued and unpaid interest.

Repayments of Senior Notes

In August 2023, the company repaid \$1.05 billion of 3.25 percent unsecured senior notes upon maturity.

Subsequent Event - In January 2025, the company repaid \$1.5 billion of 2.93 percent unsecured senior notes upon maturity.

Long-term debt consists of the following:

| \$ in millions                                      | December 31          |          |
|-----------------------------------------------------|----------------------|----------|
|                                                     | 2024                 | 2023     |
| <b>Fixed-rate notes and debentures, maturing in</b> | <b>Interest rate</b> |          |
| 2025                                                | 2.93%                | \$ 1,500 |
| 2026                                                | 7.75% - 7.88%        | 527      |
| 2027                                                | 3.20%                | 750      |
| 2028                                                | 3.25%                | 2,000    |
| 2029                                                | 4.60%                | 500      |
| 2030                                                | 4.40%                | 750      |
| 2031                                                | 7.75%                | 466      |
| 2033                                                | 4.70%                | 1,000    |
| 2034                                                | 4.90%                | 850      |
| 2040                                                | 5.05% - 5.15%        | 800      |
| 2043                                                | 4.75%                | 950      |
| 2045                                                | 3.85%                | 600      |
| 2047                                                | 4.03%                | 2,250    |
| 2050                                                | 5.25%                | 1,000    |
| 2053                                                | 4.95%                | 1,000    |
| 2054                                                | 5.20%                | 1,150    |
| Other                                               | Various              | 264      |
| Debt issuance costs                                 |                      | (83)     |
| Total long-term debt                                |                      | 16,274   |
| Less: current portion <sup>(1)</sup>                |                      | 1,582    |
| Long-term debt, net of current portion              | \$                   | 14,692   |

<sup>(1)</sup> The current portion of long-term debt is recorded in Other current liabilities in the consolidated statements of financial position.

The estimated fair value of long-term debt was \$15.3 billion and \$13.4 billion as of December 31, 2024 and 2023, respectively. We calculated the fair value of long-term debt using Level 2 inputs, based on interest rates available for debt with terms and maturities similar to the company's existing debt arrangements.

Indentures underlying long-term debt issued by the company or its subsidiaries contain various restrictions with respect to the issuer, including one or more restrictions relating to limitations on liens, sale-leaseback arrangements and funded debt of subsidiaries. The majority of these fixed rate notes and debentures are subject to redemption at the company's discretion at any time prior to maturity in whole or in part at the principal amount plus any make-whole premium and accrued and unpaid interest. Interest on these fixed rate notes and debentures are payable semi-annually in arrears.

Total interest payments, net of interest received and capitalized, were \$475 million, \$437 million and \$474 million for the years ended December 31, 2024, 2023 and 2022, respectively. The company capitalized interest expense of \$113 million, \$95 million and \$53 million during the years ended December 31, 2024, 2023 and 2022, respectively.

Maturities of long-term debt as of December 31, 2024, are as follows:

| \$ in millions                                         |           |
|--------------------------------------------------------|-----------|
| Year Ending December 31                                |           |
| 2025                                                   | \$ 1,582  |
| 2026                                                   | 534       |
| 2027                                                   | 755       |
| 2028                                                   | 2,044     |
| 2029                                                   | 592       |
| Thereafter                                             | 10,871    |
| Total principal payments                               | 16,378    |
| Unamortized premium on long-term debt, net of discount | (21)      |
| Debt issuance costs                                    | (83)      |
| Total long-term debt                                   | \$ 16,274 |

Investigations, Claims  
and Litigation

[Commitments and Contingencies Disclosure \[Abstract\]](#)

[Investigations, Claims and Litigation](#)

12 Months Ended  
Dec. 31, 2024

10. INVESTIGATIONS, CLAIMS AND LITIGATION

For over 25 years, the company has worked closely with the United States Navy, the United States Environmental Protection Agency, the New York State Department of Environmental Conservation, the New York State Department of Health and other federal, state and local governmental authorities, to address environmental conditions allegedly resulting from historic operations at the former United States Navy and Grumman facilities in Bethpage, New York. We have incurred, and expect to continue to incur, as included in Note 11, substantial remediation costs related to these Bethpage environmental conditions, including potential costs relating to unanticipated developments such as new discoveries of potential contaminants. It is also possible that applicable remediation standards and other requirements to which we are subject may continue to change, and that our costs may increase materially. In 2022, we resolved several disputes and regulatory proceedings concerning the scope and allocation of remediation responsibilities and costs related to this site and we continue remediation consistent with agreements through which those disputes were resolved. The company continues to be involved in other remediation-related disputes, none of which are material individually or in the aggregate. We are also a party to various individual lawsuits and a putative class action in the Eastern District of New York alleging personal injury and property damage related to the legacy Bethpage environmental conditions (the "Bethpage EDNY cases"). The court has stayed the filed individual lawsuits, pending its decision on class certification, which the court will undertake if an ongoing mediation between the parties is unsuccessful. We are also a party, and may become a party, to other lawsuits brought by or against insurance carriers, and by other individual plaintiffs and/or putative classes, as well as other parties. We cannot at this time predict or reasonably estimate the potential outcomes or ranges of possible liability of the Bethpage EDNY cases.

The company received from the U.S. Department of Justice (DOJ) a criminal subpoena on December 9, 2022, and a civil investigative demand (CID) on February 2, 2023, both seeking information regarding financial and cost accounting and controls that appears focused on the interest rate assumptions the company used to determine our U.S. Government Cost Accounting Standards (CAS) pension expense, which we discuss in Note 11 below. The company is engaging with the government and responding to the requests. We cannot at this point predict the outcome of these matters.

The company is a party to various other investigations, lawsuits, arbitration, claims, enforcement actions and other legal proceedings, including government investigations and claims, that arise in the ordinary course of our business. The nature of legal proceedings is such that we cannot assure the outcome of any particular matter. However, based on information available to the company to date, the company does not believe that the outcome of any of these other matters pending against the company is likely to have a material adverse effect on the company's consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.

Commitments and  
Contingencies

[Commitments and Contingencies Disclosure \[Abstract\]](#)

[Commitments and Contingencies](#)

12 Months Ended  
Dec. 31, 2024

11. COMMITMENTS AND CONTINGENCIES

U.S. Government Cost Claims and Contingencies

From time to time, the company is advised of claims by the U.S. government concerning certain potential disallowed costs, plus, at times, penalties and interest. When such findings are presented, the company and U.S. government representatives engage in discussions to enable the company to evaluate the merits of these claims, as well as to

assess the amounts being claimed. Where appropriate, provisions are made to reflect the company's estimated exposure for such potential disallowed costs. Such provisions are reviewed periodically using the most recent information available. The company believes it has adequately reserved for disputed amounts that are probable and reasonably estimable, and that the outcome of any such matters would not have a material adverse effect on its consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.

In 2019, the Defense Contract Management Agency (DCMA) raised questions about an interest rate assumption used by the company to determine our CAS pension expense. On June 1, 2020, DCMA provided written notice that the assumptions the company used during the period 2013-2019 were potentially noncompliant with CAS. We submitted a formal response on July 31, 2020, which we believed demonstrates the appropriateness of the assumptions used. On November 24, 2020, DCMA replied to the company's response, disagreeing with our position and requesting additional input,



which we provided on February 22, 2021. We subsequently continued to exchange correspondence and engage with DCMA on this matter, including responding to requests for and providing additional information. On February 15, 2024, DCMA sent to the company a Contracting Officer's determination of noncompliance with CAS, which is an interim, non-final determination, and the parties engaged in discussions. As noted in Note 10 above, the company received from the DOJ a criminal subpoena on December 9, 2022 and a CID on February 2, 2023, both seeking information that appears related to the interest rate assumptions at issue in our discussions with DCMA. The company has responded to requests and expects to continue discussions with the DOJ and DCMA as these matters progress. We cannot at this point predict the outcome of these matters. The sensitivity to changes in interest rate assumptions makes it reasonably possible the outcome of the DCMA matter could have a material adverse effect on our financial position, results of operations and/or cash flows, although we are not currently able to estimate a range of any potential loss.

#### Environmental Matters

The table below summarizes the amount accrued for environmental remediation costs, management's estimate of the amount of reasonably possible future costs in excess of accrued costs and the deferred costs expected to be recoverable through overhead charges on U.S. government contracts as of December 31, 2024 and 2023:

| <i>\$ in millions</i>    | Accrued Costs <sup>(1)(2)</sup> |            | Reasonably Possible Future Costs in Excess of Accrued Costs <sup>(2)</sup> |            | Deferred Costs <sup>(3)</sup> |            |
|--------------------------|---------------------------------|------------|----------------------------------------------------------------------------|------------|-------------------------------|------------|
| <b>December 31, 2024</b> | <b>\$</b>                       | <b>546</b> | <b>\$</b>                                                                  | <b>377</b> | <b>\$</b>                     | <b>507</b> |
| December 31, 2023        |                                 | 584        |                                                                            | 387        |                               | 518        |

<sup>(1)</sup> As of December 31, 2024, \$196 million is recorded in Other current liabilities and \$350 million is recorded in Other non-current liabilities.

<sup>(2)</sup> Estimated remediation costs are not discounted to present value. The reasonably possible future costs in excess of accrued costs do not take into consideration amounts expected to be recoverable through overhead charges on U.S. government contracts.

<sup>(3)</sup> As of December 31, 2024, \$186 million is deferred in Prepaid expenses and other current assets and \$321 million is deferred in Other non-current assets. These amounts reflect a \$26 million increase during the second quarter of 2024 in our estimated recovery of certain environmental remediation costs and are evaluated for recoverability on a routine basis.

Although management cannot predict whether (i) new information gained as our environmental remediation projects progress, (ii) changes in remediation standards or other requirements to which we are subject, or (iii) other changes in facts and circumstances will materially affect the estimated liability accrued, we do not anticipate that future remediation expenditures associated with our currently identified projects will have a material adverse effect on the company's consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.

#### Financial Arrangements

In the ordinary course of business, the company uses standby letters of credit and guarantees issued by commercial banks and surety bonds issued principally by insurance companies to guarantee the performance on certain obligations. At December 31, 2024, there were \$484 million of stand-by letters of credit and guarantees and \$272 million of surety bonds outstanding.

#### Indemnifications

The company has provided indemnifications for certain environmental, income tax and other potential liabilities in connection with certain of its divestitures. The settlement of these liabilities is not expected to have a material

adverse effect on the company's consolidated financial position as of December 31, 2024, or its annual results of operations and/or cash flows.

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#### Retirement Benefits

#### Retirement Benefits

#### [Abstract]

#### Retirement Benefits

#### 12 Months Ended

**Dec. 31, 2024**

#### 12. RETIREMENT BENEFITS

##### Plan Descriptions

**U.S. Defined Benefit Pension Plans** – The company sponsors several defined benefit pension plans in the U.S. Pension benefits for most participants are based on years of service, age and compensation. It is our policy to fund at least the minimum amount required for qualified plans, using actuarial cost methods and assumptions acceptable under U.S. government regulations, by making payments into benefit trusts separate from the company.

**U.S. Defined Contribution Plans** – The company also sponsors defined contribution plans covering the majority of its employees, including certain employees covered under collective bargaining agreements. Company contributions vary depending on date of hire, with a majority of employees being eligible for employer matching of employee contributions. Based on date of hire, certain employees are eligible to receive a company non-elective contribution or an enhanced matching contribution in lieu of a defined benefit pension plan benefit. The company's contributions to these defined contribution plans for the years ended December 31, 2024, 2023 and 2022, were \$657 million, \$634 million and \$558 million, respectively.

**Non-U.S. Benefit Plans** – The company sponsors several benefit plans for non-U.S. employees. These plans are designed to provide benefits appropriate to local practice and in accordance with local regulations. Some of these plans are funded using benefit trusts separate from the company.

**Medical and Life Benefits** – The company funds a portion of the costs for certain health care and life insurance benefits for a substantial number of its active and retired employees. In addition to a company and employee cost-sharing feature, the health plans also have provisions for deductibles, co-payments, coinsurance percentages, out-of-pocket limits, conformance to a schedule of reasonable fees, the use of managed care providers and coordination of benefits with other plans. The plans also provide for a Medicare carve-out. The company reserves the right to amend or terminate the plans at any time.

Certain covered employees and dependents are eligible to participate in plans upon retirement if they meet specified age and years of service requirements. The company provides subsidies to reimburse certain retirees for a portion of the cost of individual Medicare-supplemental coverage purchased directly by the retiree through a private insurance exchange. The company has capped the amount of its contributions for substantially all its remaining postretirement medical and life benefit plans. In addition, after January 1, 2005 (or earlier at some businesses), newly hired employees are not eligible for subsidized postretirement medical and life benefits.

#### Summary Plan Results

The cost to the company of its retirement benefit plans is shown in the following table:

| <i>\$ in millions</i>                                    | Year Ended December 31 |               |                   |                           |                |                |
|----------------------------------------------------------|------------------------|---------------|-------------------|---------------------------|----------------|----------------|
|                                                          | Pension Benefits       |               |                   | Medical and Life Benefits |                |                |
|                                                          | 2024                   | 2023          | 2022              | 2024                      | 2023           | 2022           |
| <b>Components of net periodic benefit cost (benefit)</b> |                        |               |                   |                           |                |                |
| Service cost                                             | \$ 239                 | \$ 236        | \$ 367            | \$ 4                      | \$ 5           | \$ 9           |
| Interest cost                                            | 1,526                  | 1,568         | 1,136             | 62                        | 67             | 47             |
| Expected return on plan assets                           | (2,197)                | (2,098)       | (2,641)           | (87)                      | (85)           | (110)          |
| Amortization of prior service credit                     | —                      | —             | —                 | —                         | (1)            | (1)            |
| Mark-to-market (benefit) expense                         | (450)                  | 442           | (1,262)           | 7                         | (20)           | 30             |
| Other                                                    | 15                     | —             | —                 | —                         | —              | —              |
| <b>Net periodic benefit cost (benefit)</b>               | <b>\$ (867)</b>        | <b>\$ 148</b> | <b>\$ (2,400)</b> | <b>\$ (14)</b>            | <b>\$ (34)</b> | <b>\$ (25)</b> |

The table below summarizes the changes in unamortized prior service credit for the years ended December 31, 2022, 2023 and 2024:

| <i>\$ in millions</i>                                                 | Pension Benefits |             | Medical and Life Benefits |             | Total         |
|-----------------------------------------------------------------------|------------------|-------------|---------------------------|-------------|---------------|
| <b>Changes in unamortized prior service credit</b>                    |                  |             |                           |             |               |
| Amortization of prior service credit                                  | \$ —             | \$ —        | \$ 1                      | \$ —        | 1             |
| Tax expense                                                           | —                | —           | —                         | —           | —             |
| Decrease (increase) in unamortized prior service credit – 2022        | —                | —           | 1                         | —           | 1             |
| Amortization of prior service credit                                  | —                | —           | 1                         | —           | 1             |
| Tax expense                                                           | —                | —           | —                         | —           | —             |
| Decrease (increase) in unamortized prior service credit – 2023        | —                | —           | 1                         | —           | 1             |
| (Increase) decrease in prior service credit                           | —                | —           | (12)                      | —           | (12)          |
| Amortization of prior service credit                                  | —                | —           | —                         | —           | —             |
| Tax expense                                                           | —                | —           | 3                         | —           | 3             |
| <b>(Increase) decrease in unamortized prior service credit – 2024</b> | <b>\$ —</b>      | <b>\$ —</b> | <b>\$ (9)</b>             | <b>\$ —</b> | <b>\$ (9)</b> |

The following table sets forth the funded status and amounts recognized in the consolidated statements of financial position for the company's defined benefit retirement plans. Pension benefits data includes the qualified plans, foreign plans and U.S. unfunded non-qualified plans for benefits provided to directors, officers and certain employees. The company uses a December 31 measurement date for its plans.

| <i>\$ in millions</i>                             | Pension Benefits |                 | Medical and Life Benefits |              |
|---------------------------------------------------|------------------|-----------------|---------------------------|--------------|
|                                                   | 2024             | 2023            | 2024                      | 2023         |
| <b>Plan Assets</b>                                |                  |                 |                           |              |
| Fair value of plan assets at beginning of year    | \$ 30,251        | \$ 28,920       | \$ 1,274                  | \$ 1,226     |
| Net gain on plan assets                           | 1,358            | 3,104           | 61                        | 146          |
| Employer contributions                            | 96               | 105             | 33                        | 34           |
| Participant contributions                         | 6                | 6               | 26                        | 27           |
| Benefits paid                                     | (1,942)          | (1,894)         | (157)                     | (159)        |
| Other                                             | —                | 10              | —                         | —            |
| Fair value of plan assets at end of year          | 29,769           | 30,251          | 1,237                     | 1,274        |
| <b>Projected Benefit Obligation</b>               |                  |                 |                           |              |
| Projected benefit obligation at beginning of year | 30,443           | 29,067          | 1,246                     | 1,264        |
| Service cost                                      | 239              | 236             | 4                         | 5            |
| Interest cost                                     | 1,526            | 1,568           | 62                        | 67           |
| Participant contributions                         | 6                | 6               | 26                        | 27           |
| Actuarial (gain) loss                             | (1,295)          | 1,447           | (19)                      | 42           |
| Benefits paid                                     | (1,942)          | (1,894)         | (157)                     | (159)        |
| Other                                             | 15               | 13              | (12)                      | —            |
| Projected benefit obligation at end of year       | 28,992           | 30,443          | 1,150                     | 1,246        |
| <b>Funded status</b>                              | <b>\$ 777</b>    | <b>\$ (192)</b> | <b>\$ 87</b>              | <b>\$ 28</b> |

The decrease in the fair value of plan assets for the year ended December 31, 2024 was principally driven by \$2.1 billion of benefit payments, partially offset by net returns on plan assets of 4.7 percent. The decrease in our projected benefit obligation for the year ended December 31, 2024, was primarily driven by \$2.1 billion of benefit payments and a 58 basis point increase in the discount rate from year end 2023, partially offset by \$1.6 billion of interest cost.

| <i>\$ in millions</i>                                                                            | Pension Benefits |          | Medical and Life Benefits |        |
|--------------------------------------------------------------------------------------------------|------------------|----------|---------------------------|--------|
|                                                                                                  | 2024             | 2023     | 2024                      | 2023   |
| <b>Classification of amounts recognized in the consolidated statements of financial position</b> |                  |          |                           |        |
| Non-current assets                                                                               | \$ 1,851         | \$ 1,042 | \$ 333                    | \$ 289 |
| Current liability                                                                                | (177)            | (178)    | (23)                      | (27)   |
| Non-current liability                                                                            | (897)            | (1,056)  | (223)                     | (234)  |

The accumulated benefit obligation for all defined benefit pension plans was \$28.7 billion and \$30.1 billion at December 31, 2024 and 2023, respectively. Amounts for pension plans with accumulated benefit obligations in excess of fair value of plan assets are as follows:

| <i>\$ in millions</i>          | December 31 |          |
|--------------------------------|-------------|----------|
|                                | 2024        | 2023     |
| Projected benefit obligation   | \$ 1,076    | \$ 1,152 |
| Accumulated benefit obligation | 1,066       | 1,143    |
| Fair value of plan assets      | 3           | 3        |

#### Plan Assumptions

On a weighted-average basis, the following assumptions were used to determine benefit obligations at December 31 of each year and net periodic benefit cost for the following year:

|                                                                                                   | Pension Benefits |        |        | Medical and Life Benefits |        |        |
|---------------------------------------------------------------------------------------------------|------------------|--------|--------|---------------------------|--------|--------|
|                                                                                                   | 2024             | 2023   | 2022   | 2024                      | 2023   | 2022   |
| Discount rate                                                                                     | 5.73 %           | 5.15 % | 5.54 % | 5.69 %                    | 5.20 % | 5.57 % |
| Expected long-term return on plan assets                                                          | 7.50 %           | 7.50 % | 7.50 % | 7.08 %                    | 7.12 % | 7.23 % |
| Initial cash balance crediting rate assumed for the next year                                     | 4.78 %           | 4.02 % | 3.96 % |                           |        |        |
| Rate to which the cash balance crediting rate is assumed to increase/decrease (the ultimate rate) | 4.90 %           | 4.02 % | 3.88 % |                           |        |        |
| Year that the cash balance crediting rate reaches the ultimate rate                               | 2030             | 2029   | 2028   |                           |        |        |
| Rate of compensation increase                                                                     | 3.00 %           | 3.00 % | 3.00 % |                           |        |        |
| Initial health care cost trend rate assumed for the next year                                     |                  |        |        | 5.90 %                    | 6.20 % | 6.50 % |
| Rate to which the health care cost trend rate is assumed to decline (the ultimate trend rate)     |                  |        |        | 5.00 %                    | 5.00 % | 5.00 % |
| Year that the health care cost trend rate reaches the ultimate trend rate                         |                  |        |        | 2028                      | 2028   | 2028   |

#### Plan Assets and Investment Policy

Plan assets are invested in various asset classes that are expected to produce a sufficient level of diversification and investment return over the long term. Liability studies are conducted on a regular basis to provide guidance in setting investment goals with an objective to balance risk. Risk targets are established and monitored against acceptable ranges.

Our investment policies and procedures are designed to ensure the plans’ investments comply with ERISA. Guidelines are established defining permitted investments within each asset class. Derivatives are used for transitioning assets, asset class rebalancing, managing currency risk and for management of fixed-income and alternative investments.

For the majority of the plans’ assets, the investment policies require that the asset allocation be maintained within the following ranges as of December 31, 2024:

|                           | Asset Allocation Ranges |
|---------------------------|-------------------------|
| Cash and cash equivalents | 0% - 12%                |
| Global public equities    | 18% - 38%               |
| Fixed-income securities   | 35% - 55%               |
| Alternative investments   | 10% - 30%               |
| Private credit            | 0% - 15%                |

The table below provides the fair values of the company’s pension and Voluntary Employees’ Beneficiary Association (VEBA) trust plan assets at December 31, 2024 and 2023, by asset category. The table also identifies the level of inputs used to determine the fair value of assets in each category. See Note 1 for the definitions of these levels. Certain investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient are not required to be categorized in the fair value hierarchy table. The total fair value of these investments is included in the table below to permit reconciliation of the fair value hierarchy to amounts presented in the funded status table. As of December 31, 2024 and 2023, there were no investments expected to be sold at a value materially different than NAV.

|                                                       | Level 1  |          | Level 2  |          | Level 3 |      | Total     |           |
|-------------------------------------------------------|----------|----------|----------|----------|---------|------|-----------|-----------|
| <i>\$ in millions</i>                                 | 2024     | 2023     | 2024     | 2023     | 2024    | 2023 | 2024      | 2023      |
| <b>Asset category</b>                                 |          |          |          |          |         |      |           |           |
| Cash and cash equivalents                             | \$ 223   | \$ 85    | \$ 751   | \$ 830   |         |      | \$ 974    | \$ 915    |
| U.S. equities                                         | 1,824    | 1,712    | —        | 1        |         |      | 1,824     | 1,713     |
| International equities                                | 1,570    | 1,506    |          |          |         |      | 1,570     | 1,506     |
| Fixed-income securities                               |          |          |          |          |         |      |           |           |
| U.S. Treasuries                                       | 17       | —        | 3,520    | 3,890    |         |      | 3,537     | 3,890     |
| U.S. Government Agency                                |          |          | 97       | 124      |         |      | 97        | 124       |
| Non-U.S. Government                                   | 1        | —        | 282      | 176      |         |      | 283       | 176       |
| Corporate debt                                        | 79       | 74       | 3,664    | 4,432    |         |      | 3,743     | 4,506     |
| Asset backed                                          |          |          | 1,301    | 436      |         |      | 1,301     | 436       |
| High yield debt                                       | 12       | 13       | 20       | 20       |         |      | 32        | 33        |
| Bank loans                                            |          |          | 16       | 15       |         |      | 16        | 15        |
| Derivatives and other assets                          | (55)     | 64       | 99       | 43       | \$ 2    | \$ 2 | 46        | 109       |
| Investments valued using NAV as a practical expedient |          |          |          |          |         |      |           |           |
| U.S. equities                                         |          |          |          |          |         |      | 1,486     | 1,294     |
| International equities                                |          |          |          |          |         |      | 4,071     | 3,972     |
| Fixed-income funds                                    |          |          |          |          |         |      | 3,559     | 4,057     |
| Hedge funds                                           |          |          |          |          |         |      | 32        | 38        |
| Opportunistic investments                             |          |          |          |          |         |      | 1,816     | 3,176     |
| Private equity funds                                  |          |          |          |          |         |      | 3,521     | 3,466     |
| Real estate funds                                     |          |          |          |          |         |      | 1,860     | 2,123     |
| Private credit                                        |          |          |          |          |         |      | 1,779     | —         |
| Payables, net                                         |          |          |          |          |         |      | (541)     | (24)      |
| Fair value of plan assets at the end of the year      | \$ 3,671 | \$ 3,454 | \$ 9,750 | \$ 9,967 | \$ 2    | \$ 2 | \$ 31,006 | \$ 31,525 |

There were no transfers of plan assets into or out of Level 3 of the fair value hierarchy during the years ended December 31, 2024 and 2023.

Generally, investments are valued based on information in financial publications of general circulation, statistical and valuation services, records of security exchanges, appraisal by qualified persons, transactions and bona fide offers. Cash and cash equivalents are predominantly held in money market or short-term investment funds. U.S. and international equities consist primarily of common stocks and institutional common trust funds. Investments in certain equity securities, which include domestic and international securities and registered investment companies, and exchange-traded funds with fixed income strategies are valued at the last reported sales or quoted price on the last business day of the reporting period. Fair values for certain fixed-income securities, which are not exchange-traded, are valued using third-party pricing services.

Derivatives and other assets include derivative assets with a fair value of \$107 million and \$172 million, derivative liabilities with a fair value of \$123 million and \$101 million, and net notional amounts of \$9.2 billion and \$4.9 billion, as of December 31, 2024 and 2023, respectively. Derivative instruments may include exchange traded futures contracts, interest rate swaps, options on futures and swaps, currency contracts, total return swaps and credit default swaps. Notional amounts do not quantify risk or represent assets or liabilities of the pension and VEBA trusts, but are used in the calculation of cash settlement under the contracts. Certain derivative financial instruments within the pension trust are subject to master netting agreements with certain counterparties.

Investments in certain equity and fixed-income funds, which include common/collective trust funds, and alternative investments, including hedge funds, opportunistic investments, private equity funds and real estate funds, are valued based on the NAV derived by the investment managers, as a practical expedient, and are described further below.

U.S. and International equities: Generally, redemption periods are daily, monthly or quarterly with a notice requirement less than 90 days. As of December 31, 2024 and 2023, there were no unfunded commitments.

Fixed-income funds: Generally, redemption periods are daily, monthly or quarterly with a notice requirement of two days. As of December 31, 2024 and 2023 there were no unfunded commitments.

Hedge funds: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. As of December 31, 2024 and 2023, unfunded commitments were \$6 million.

Opportunistic investments: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. As of December 31, 2024 and 2023, unfunded commitments were \$1.3 billion and \$1.6 billion, respectively.

Private equity funds: The term of each fund is typically 10 or more years and the fund’s investors do not have an option to redeem their interest in the fund. As of December 31, 2024 and 2023, unfunded commitments were \$1.6 billion and \$1.9 billion, respectively.

Real estate funds: Consist primarily of open-end funds that generally allow investors to redeem their interests in the funds. Certain closed-end real estate funds have terms of 10 or more years. As of December 31, 2024 and 2023, unfunded commitments were \$24 million and \$28 million, respectively.

Private credit: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. As of December 31, 2024, unfunded commitments were \$721 million.

At December 31, 2024 and 2023, the defined benefit pension trust held \$1 million and \$0, respectively, of Northrop Grumman common stock. At December 31, 2024 and 2023, the VEBA trust did not hold any Northrop Grumman common stock.

#### Benefit Payments

The following table reflects estimated future benefit payments for the next ten years, based upon the same assumptions used to measure the benefit obligation, and includes expected future employee service, as of December 31, 2024:

| <i>\$ in millions</i>   | Pension Plans | Medical and Life Plans | Total    |
|-------------------------|---------------|------------------------|----------|
| Year Ending December 31 |               |                        |          |
| 2025                    | \$ 2,058      | \$ 111                 | \$ 2,169 |
| 2026                    | 2,101         | 112                    | 2,213    |
| 2027                    | 2,138         | 111                    | 2,249    |
| 2028                    | 2,164         | 109                    | 2,273    |
| 2029                    | 2,183         | 106                    | 2,289    |
| 2030 through 2034       | 10,909        | 473                    | 11,382   |

In 2025, the company expects to contribute the required minimum funding of approximately \$94 million to its pension plans and approximately \$33 million to its medical and life benefit plans. During the year ended December 31, 2024, the company made no discretionary pension contributions.

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**Stock Compensation Plans and Other Compensation Arrangements**  
[Share-Based Payment Arrangement \[Abstract\]](#)  
[Stock Compensation Plans and Other Compensation Arrangements](#)

**12 Months Ended**

**Dec. 31, 2024**

### 13. STOCK COMPENSATION PLANS AND OTHER COMPENSATION ARRANGEMENTS

#### Stock Compensation Plans

At December 31, 2024, the company had stock-based compensation awards outstanding under the following shareholder-approved plans: the 2024 Long-Term Incentive Stock Plan (2024 Plan) and the 2011 Long-Term Incentive Stock Plan (2011 Plan), both applicable to employees and non-employee directors, and the 1993 Stock Plan for Non-Employee Directors (1993 SPND).

*Employee Plans* - On May 15, 2024, the company’s shareholders approved the company’s new 2024 Plan, which replaced the 2011 Plan. The 2024 Plan authorized 5.75 million new shares (less the number of shares subject to any new awards under the 2011 Plan between March 1 and May 15, 2024). Under the terms of the 2024 Plan, in the event outstanding awards under the 2011 Plan expire or terminate without being exercised or paid, as the case may be, such forfeited shares will become available for award under the 2024 Plan and increase the authorization. As of December 31, 2024, 5.8 million shares remain available for issuance under the 2024 Plan.

The 2011 Plan provided for and the 2024 Plan provides for the following equity awards: stock options, stock appreciation rights (SARs) and stock awards. Under the 2011 Plan and 2024 Plan, no SARs have been granted and there are no outstanding stock options. Stock awards include restricted performance stock rights (RPSR) and restricted stock rights (RSR). RPSRs generally vest and are paid following the completion of a three-year performance period, based primarily on achievement of certain performance metrics determined by the Board. RSRs generally vest 100% after three years. Each includes dividend equivalents, which are paid concurrently with the RPSR or RSR. The terms of equity awards granted under the 2011 Plan and 2024 Plan provide for accelerated vesting, and in some instances forfeiture, of all or a portion of an award upon termination of employment.

*Non-Employee Director Plans* - Awards to non-employee directors are made pursuant to the Northrop Grumman Corporation Equity Grant Program for Non-Employee Directors (the Director Program). The Director Program was amended and restated effective January 1, 2016 (the Amended Director Program). The Director Program was again amended and restated effective May 15, 2024, consistent with the shareholder-approved 2024 Plan (the Restated Director Program). Under the Restated Director Program, each non-employee director is awarded an annual equity grant in the form of Automatic Stock Units, which vest on the one-year anniversary of the annual shareholder meeting. Directors may elect to have all or any portion of their Automatic Stock Units paid on (A) the earlier of (i) the beginning of a specified calendar year after the vesting date or (ii) their separation from service as a member of the Board, or (B) on the vesting date.

Directors also may elect to defer to a later year all or a portion of their remaining cash retainer or committee retainer fees into a stock unit account as Elective Stock Units or in alternative investment options. Elective Stock Units are awarded on a quarterly basis. Directors may elect to have all or a portion of their Elective Stock Units paid on the earlier of (i) the beginning of a specified calendar year or (ii) their separation from service as a member of the Board. Stock units awarded under the Amended Director Program and Restated Director Program are paid out in an equivalent number of shares of Northrop Grumman common stock. Directors are credited with dividend equivalents in connection with the accumulated stock units until the shares of common stock relating to such stock units are issued.

**Compensation Expense**

Stock-based compensation expense for the years ended December 31, 2024, 2023 and 2022 was \$101 million, \$87 million and \$99 million, respectively. The related tax benefits for stock-based compensation for the years ended December 31, 2024, 2023 and 2022 were \$15 million, \$9 million and \$10 million, respectively.

At December 31, 2024, there was \$102 million of unrecognized compensation expense related to unvested stock awards granted under the company's stock-based compensation plans. These amounts are expected to be charged to expense over a weighted-average period of 1.3 years.

**Stock Awards**

Stock award activity for the years ended December 31, 2022, 2023 and 2024, is presented in the table below. Vested awards do not include any adjustments to reflect the final performance measure for issued shares.

|                                         | Stock Awards<br>(in thousands) | Weighted-Average<br>Grant Date<br>Fair Value<br>Per Share | Weighted-Average<br>Remaining<br>Contractual<br>Term (in years) |
|-----------------------------------------|--------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------|
| Outstanding at January 1, 2022          | 580                            | \$ 314                                                    | 1.4                                                             |
| Granted                                 | 238                            | 397                                                       |                                                                 |
| Vested                                  | (226)                          | 327                                                       |                                                                 |
| Forfeited                               | (31)                           | 320                                                       |                                                                 |
| Outstanding at December 31, 2022        | 561                            | \$ 344                                                    | 1.4                                                             |
| Granted                                 | 216                            | 478                                                       |                                                                 |
| Vested                                  | (249)                          | 315                                                       |                                                                 |
| Forfeited                               | (29)                           | 373                                                       |                                                                 |
| Outstanding at December 31, 2023        | 499                            | \$ 417                                                    | 1.3                                                             |
| Granted                                 | 238                            | 465                                                       |                                                                 |
| Vested                                  | (221)                          | 366                                                       |                                                                 |
| Forfeited                               | (47)                           | 450                                                       |                                                                 |
| <b>Outstanding at December 31, 2024</b> | <b>469</b>                     | <b>\$ 462</b>                                             | <b>1.4</b>                                                      |

The majority of our stock awards are granted annually during the first quarter.

The grant date fair value of shares issued in settlement of fully vested stock awards was \$86 million, \$99 million and \$93 million during the years ended December 31, 2024, 2023 and 2022, respectively.

**Cash Awards**

The company grants certain employees cash units (CUs) and cash performance units (CPUs). Depending on actual performance against financial objectives, recipients of CPUs earn between 0 and 200 percent of the original grant. The following table presents the minimum and maximum aggregate payout amounts related to those cash awards granted for the periods presented:

| \$ in millions                  | Year Ended December 31 |       |       |
|---------------------------------|------------------------|-------|-------|
|                                 | 2024                   | 2023  | 2022  |
| Minimum aggregate payout amount | \$ 35                  | \$ 34 | \$ 32 |
| Maximum aggregate payout amount | 200                    | 192   | 183   |

The majority of our cash awards are granted annually during the first quarter. CUs typically vest and settle in cash on the third anniversary of the grant date, while CPUs generally vest and pay out in cash based primarily on the achievement of certain performance metrics over a three-year period. At December 31, 2024, there was \$120 million of unrecognized compensation expense related to cash awards.

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**Leases**

**12 Months Ended  
Dec. 31, 2024**

[Leases \[Abstract\]](#)

[Lessee, Operating Leases \[Text Block\]](#)

**14. LEASES**

**Total Lease Cost**

Total lease cost is included in Product and Service costs in the consolidated statement of earnings and comprehensive income and is recorded net of immaterial sublease income. Total lease cost is comprised of the following:

| \$ in millions        | Year Ended December 31 |        |        |
|-----------------------|------------------------|--------|--------|
|                       | 2024                   | 2023   | 2022   |
| Operating lease cost  | \$ 370                 | \$ 358 | \$ 332 |
| Variable lease cost   | 49                     | 48     | 35     |
| Short-term lease cost | 51                     | 69     | 51     |
| Total lease cost      | \$ 470                 | \$ 475 | \$ 418 |

**Supplemental Balance Sheet Information**

Supplemental operating lease balance sheet information consists of the following:

| \$ in millions                      | Year Ended December 31 |          |      |
|-------------------------------------|------------------------|----------|------|
|                                     | 2024                   | 2023     | 2022 |
| Operating lease right-of-use assets | \$ 1,770               | \$ 1,818 |      |
| Other current liabilities           | 324                    | 300      |      |
| Operating lease liabilities         | 1,798                  | 1,892    |      |
| Total operating lease liabilities   | \$ 2,122               | \$ 2,192 |      |

**Other Supplemental Information**

Other supplemental operating lease information consists of the following:

| \$ in millions                                                                   | Year Ended December 31 |            |  |
|----------------------------------------------------------------------------------|------------------------|------------|--|
|                                                                                  | 2024                   | 2023       |  |
| Cash paid for amounts included in the measurement of operating lease liabilities | \$ 373                 | \$ 341     |  |
| Right-of-use assets obtained in exchange for new lease liabilities               | 272                    | 314        |  |
| Weighted average remaining lease term                                            | 10.4 years             | 11.0 years |  |
| Weighted average discount rate                                                   | 4.0 %                  | 3.9 %      |  |

**Maturities of Lease Liabilities**

Maturities of operating lease liabilities as of December 31, 2024 are as follows:

| \$ in millions                               |    |       |
|----------------------------------------------|----|-------|
| Year Ending December 31                      |    |       |
| 2025                                         | \$ | 388   |
| 2026                                         |    | 357   |
| 2027                                         |    | 299   |
| 2028                                         |    | 258   |
| 2029                                         |    | 225   |
| Thereafter                                   |    | 1,091 |
| Total lease payments                         |    | 2,618 |
| Less: imputed interest                       |    | (496) |
| Present value of operating lease liabilities | \$ | 2,122 |

As of December 31, 2024, we have approximately \$498 million in rental commitments for real estate leases that have not yet commenced. These leases are expected to commence in 2025 and 2026 with lease terms of 3 to 20 years.

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**Segment Information**

**12 Months Ended  
Dec. 31, 2024**

[Segment Reporting](#)

[\[Abstract\]](#)

[Segment Information](#)

**15. SEGMENT INFORMATION**

The company is aligned in four operating sectors, which also comprise our reportable segments: Aeronautics Systems, Defense Systems, Mission Systems and Space Systems. We generally organize our segments based on the nature of products and services offered.

The company's chief operating decision maker ("CODM") is the Chair, Chief Executive Officer and President. The CODM is responsible for allocating resources and assessing performance of the consolidated enterprise and operating sectors. The profitability measure the CODM uses to assess segment performance and allocate resources is segment operating income (and related margin rate, calculated as segment operating income divided by sales) by comparing historical, actual, and forecasted amounts on a regular basis.

The following table presents sales, operating costs and expenses, and operating income by segment:

| \$ in millions                                   | Year Ended December 31 |                 |                 |
|--------------------------------------------------|------------------------|-----------------|-----------------|
|                                                  | 2024                   | 2023            | 2022            |
| <b>Aeronautics Systems</b>                       |                        |                 |                 |
| Sales                                            | \$ 12,030              | \$ 10,786       | \$ 10,531       |
| Operating costs and expenses:                    |                        |                 |                 |
| Product                                          | 8,248                  | 8,942           | 7,161           |
| Service                                          | 2,382                  | 2,099           | 2,042           |
| Intersegment                                     | 218                    | 218             | 212             |
| Aeronautics Systems operating income (loss)      | 1,182                  | (473)           | 1,116           |
| <b>Defense Systems</b>                           |                        |                 |                 |
| Sales                                            | 8,560                  | 8,289           | 7,629           |
| Operating costs and expenses:                    |                        |                 |                 |
| Product                                          | 5,304                  | 4,819           | 4,163           |
| Service                                          | 1,641                  | 1,959           | 1,985           |
| Intersegment                                     | 749                    | 682             | 700             |
| Defense Systems operating income                 | 866                    | 829             | 781             |
| <b>Mission Systems</b>                           |                        |                 |                 |
| Sales                                            | 11,399                 | 10,895          | 10,396          |
| Operating costs and expenses:                    |                        |                 |                 |
| Product                                          | 7,000                  | 6,669           | 6,291           |
| Service                                          | 1,805                  | 1,730           | 1,639           |
| Intersegment                                     | 996                    | 887             | 848             |
| Mission Systems operating income                 | 1,598                  | 1,609           | 1,618           |
| <b>Space Systems</b>                             |                        |                 |                 |
| Sales                                            | 11,731                 | 11,873          | 10,570          |
| Operating costs and expenses:                    |                        |                 |                 |
| Product                                          | 8,711                  | 8,844           | 7,664           |
| Service                                          | 1,398                  | 1,468           | 1,404           |
| Intersegment                                     | 368                    | 431             | 424             |
| Space Systems operating income                   | 1,254                  | 1,130           | 1,078           |
| Intersegment profit eliminations                 | (356)                  | (335)           | (340)           |
| <b>Total segment operating income</b>            | <b>4,544</b>           | <b>2,760</b>    | <b>4,253</b>    |
| FAS/CAS operating adjustment                     | 40                     | (82)            | (200)           |
| Unallocated corporate expense                    | (214)                  | (141)           | (452)           |
| <b>Total operating income</b>                    | <b>\$ 4,370</b>        | <b>\$ 2,537</b> | <b>\$ 3,601</b> |
| Other (expense) income                           |                        |                 |                 |
| Interest expense                                 | (621)                  | (545)           | (506)           |
| Non-operating FAS pension benefit                | 656                    | 530             | 1,505           |
| Mark-to-market pension and OPB benefit (expense) | 443                    | (422)           | 1,232           |
| Other, net                                       | 168                    | 246             | 4               |
| <b>Earnings before income taxes</b>              | <b>\$ 5,016</b>        | <b>\$ 2,346</b> | <b>\$ 5,836</b> |

#### FAS/CAS Operating Adjustment

For financial statement purposes, we account for our employee pension plans in accordance with FAS. However, the cost of these plans is charged to our contracts in accordance with applicable FAR and CAS requirements. The FAS/CAS operating adjustment reflects the difference between CAS pension expense included as cost in segment operating income and the service cost component of FAS expense included in total operating income.

#### Unallocated Corporate (Expense) Income

Unallocated corporate (expense) income includes the portion of corporate costs not considered allowable or allocable under applicable FAR and CAS requirements, and therefore not allocated to the segments, such as changes in deferred state income taxes and a portion of management and administration, legal, environmental, compensation, retiree benefits, advertising and other corporate unallowable costs. Unallocated corporate (expense) income also includes costs not considered part of management's evaluation of segment operating performance, such as amortization of purchased intangible assets and the additional depreciation expense related to the step-up in fair value of PP&E acquired through business combinations, as well as certain compensation and other costs.

#### Disaggregation of Revenue

##### Sales by Customer Type

| \$ in millions                 | Year Ended December 31 |                  |                  |                  |                  |                  |
|--------------------------------|------------------------|------------------|------------------|------------------|------------------|------------------|
|                                | 2024                   |                  | 2023             |                  | 2022             |                  |
|                                | \$                     | % <sup>(3)</sup> | \$               | % <sup>(3)</sup> | \$               | % <sup>(3)</sup> |
| <b>Aeronautics Systems</b>     |                        |                  |                  |                  |                  |                  |
| U.S. government <sup>(1)</sup> | \$ 10,087              | 86 %             | \$ 9,132         | 87 %             | \$ 8,930         | 87 %             |
| International <sup>(2)</sup>   | 1,678                  | 14 %             | 1,379            | 13 %             | 1,344            | 13 %             |
| Other customers                | 22                     | — %              | 35               | — %              | 18               | — %              |
| Intersegment sales             | 243                    |                  | 240              |                  | 239              |                  |
| Aeronautics Systems sales      | 12,030                 | 100 %            | 10,786           | 100 %            | 10,531           | 100 %            |
| <b>Defense Systems</b>         |                        |                  |                  |                  |                  |                  |
| U.S. government <sup>(1)</sup> | 6,333                  | 82 %             | 5,946            | 79 %             | 5,406            | 79 %             |
| International <sup>(2)</sup>   | 1,301                  | 17 %             | 1,491            | 20 %             | 1,358            | 20 %             |
| Other customers                | 71                     | 1 %              | 76               | 1 %              | 71               | 1 %              |
| Intersegment sales             | 855                    |                  | 776              |                  | 794              |                  |
| Defense Systems sales          | 8,560                  | 100 %            | 8,289            | 100 %            | 7,629            | 100 %            |
| <b>Mission Systems</b>         |                        |                  |                  |                  |                  |                  |
| U.S. government <sup>(1)</sup> | 8,322                  | 81 %             | 7,999            | 81 %             | 7,471            | 80 %             |
| International <sup>(2)</sup>   | 1,809                  | 18 %             | 1,757            | 18 %             | 1,809            | 19 %             |
| Other customers                | 91                     | 1 %              | 85               | 1 %              | 101              | 1 %              |
| Intersegment sales             | 1,177                  |                  | 1,054            |                  | 1,015            |                  |
| Mission Systems sales          | 11,399                 | 100 %            | 10,895           | 100 %            | 10,396           | 100 %            |
| <b>Space Systems</b>           |                        |                  |                  |                  |                  |                  |
| U.S. government <sup>(1)</sup> | 10,694                 | 94 %             | 10,805           | 95 %             | 9,516            | 95 %             |
| International <sup>(2)</sup>   | 212                    | 2 %              | 278              | 2 %              | 337              | 3 %              |
| Other customers                | 413                    | 4 %              | 307              | 3 %              | 241              | 2 %              |
| Intersegment sales             | 412                    |                  | 483              |                  | 476              |                  |
| Space Systems sales            | 11,731                 | 100 %            | 11,873           | 100 %            | 10,570           | 100 %            |
| <b>Total</b>                   |                        |                  |                  |                  |                  |                  |
| U.S. government <sup>(1)</sup> | 35,436                 | 87 %             | 33,882           | 86 %             | 31,323           | 86 %             |
| International <sup>(2)</sup>   | 5,000                  | 12 %             | 4,905            | 13 %             | 4,848            | 13 %             |
| Other customers                | 597                    | 1 %              | 503              | 1 %              | 431              | 1 %              |
| <b>Total Sales</b>             | <b>\$ 41,033</b>       | <b>100 %</b>     | <b>\$ 39,290</b> | <b>100 %</b>     | <b>\$ 36,602</b> | <b>100 %</b>     |

<sup>(1)</sup> Sales to the U.S. government include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is the U.S. government. Each of the company's segments derives a substantial percentage of its revenue from the U.S. government.

<sup>(2)</sup> International sales include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is an international customer. These sales include foreign military sales contracted through the U.S. government.

<sup>(3)</sup> Percentages calculated based on external customer sales.

##### Sales by Contract Type

| \$ in millions             | Year Ended December 31 |                  |                  |                  |                  |                  |
|----------------------------|------------------------|------------------|------------------|------------------|------------------|------------------|
|                            | 2024                   |                  | 2023             |                  | 2022             |                  |
|                            | \$                     | % <sup>(1)</sup> | \$               | % <sup>(1)</sup> | \$               | % <sup>(1)</sup> |
| <b>Aeronautics Systems</b> |                        |                  |                  |                  |                  |                  |
| Cost-type                  | \$ 5,373               | 46 %             | \$ 5,235         | 50 %             | \$ 5,013         | 49 %             |
| Fixed-price                | 6,414                  | 54 %             | 5,311            | 50 %             | 5,279            | 51 %             |
| Intersegment sales         | 243                    |                  | 240              |                  | 239              |                  |
| Aeronautics Systems sales  | 12,030                 |                  | 10,786           |                  | 10,531           |                  |
| <b>Defense Systems</b>     |                        |                  |                  |                  |                  |                  |
| Cost-type                  | 4,002                  | 52 %             | 3,991            | 53 %             | 3,516            | 51 %             |
| Fixed-price                | 3,703                  | 48 %             | 3,522            | 47 %             | 3,319            | 49 %             |
| Intersegment sales         | 855                    |                  | 776              |                  | 794              |                  |
| Defense Systems sales      | 8,560                  |                  | 8,289            |                  | 7,629            |                  |
| <b>Mission Systems</b>     |                        |                  |                  |                  |                  |                  |
| Cost-type                  | 4,589                  | 45 %             | 4,116            | 42 %             | 3,622            | 39 %             |
| Fixed-price                | 5,633                  | 55 %             | 5,725            | 58 %             | 5,759            | 61 %             |
| Intersegment sales         | 1,177                  |                  | 1,054            |                  | 1,015            |                  |
| Mission Systems sales      | 11,399                 |                  | 10,895           |                  | 10,396           |                  |
| <b>Space Systems</b>       |                        |                  |                  |                  |                  |                  |
| Cost-type                  | 7,000                  | 62 %             | 7,637            | 67 %             | 6,560            | 65 %             |
| Fixed-price                | 4,319                  | 38 %             | 3,753            | 33 %             | 3,534            | 35 %             |
| Intersegment sales         | 412                    |                  | 483              |                  | 476              |                  |
| Space Systems sales        | 11,731                 |                  | 11,873           |                  | 10,570           |                  |
| <b>Total</b>               |                        |                  |                  |                  |                  |                  |
| Cost-type                  | 20,964                 | 51 %             | 20,979           | 53 %             | 18,711           | 51 %             |
| Fixed-price                | 20,069                 | 49 %             | 18,311           | 47 %             | 17,891           | 49 %             |
| <b>Total Sales</b>         | <b>\$ 41,033</b>       |                  | <b>\$ 39,290</b> |                  | <b>\$ 36,602</b> |                  |

<sup>(1)</sup> Percentages calculated based on external customer sales.

| \$ in millions                          | Year Ended December 31 |                  |           |                  |           |                  |
|-----------------------------------------|------------------------|------------------|-----------|------------------|-----------|------------------|
|                                         | 2024                   |                  | 2023      |                  | 2022      |                  |
|                                         | \$                     | % <sup>(3)</sup> | \$        | % <sup>(3)</sup> | \$        | % <sup>(3)</sup> |
| <b>Aeronautics Systems</b>              |                        |                  |           |                  |           |                  |
| United States <sup>(1)</sup>            | \$ 10,109              | 86 %             | \$ 9,167  | 87 %             | \$ 8,948  | 87 %             |
| Asia/Pacific                            | 694                    | 6 %              | 607       | 6 %              | 708       | 7 %              |
| Europe                                  | 947                    | 8 %              | 736       | 7 %              | 585       | 6 %              |
| Other geographic regions <sup>(2)</sup> | 37                     | — %              | 36        | — %              | 51        | — %              |
| Intersegment sales                      | 243                    |                  | 240       |                  | 239       |                  |
| Aeronautics Systems sales               | 12,030                 |                  | 10,786    |                  | 10,531    |                  |
| <b>Defense Systems</b>                  |                        |                  |           |                  |           |                  |
| United States <sup>(1)</sup>            | 6,404                  | 83 %             | 6,022     | 80 %             | 5,477     | 80 %             |
| Asia/Pacific                            | 344                    | 4 %              | 419       | 6 %              | 454       | 7 %              |
| Europe                                  | 766                    | 10 %             | 601       | 8 %              | 477       | 7 %              |
| Other geographic regions <sup>(2)</sup> | 191                    | 3 %              | 471       | 6 %              | 427       | 6 %              |
| Intersegment sales                      | 855                    |                  | 776       |                  | 794       |                  |
| Defense Systems sales                   | 8,560                  |                  | 8,289     |                  | 7,629     |                  |
| <b>Mission Systems</b>                  |                        |                  |           |                  |           |                  |
| United States <sup>(1)</sup>            | 8,413                  | 82 %             | 8,084     | 82 %             | 7,572     | 81 %             |
| Asia/Pacific                            | 472                    | 5 %              | 460       | 5 %              | 531       | 6 %              |
| Europe                                  | 990                    | 10 %             | 959       | 10 %             | 977       | 10 %             |
| Other geographic regions <sup>(2)</sup> | 347                    | 3 %              | 338       | 3 %              | 301       | 3 %              |
| Intersegment sales                      | 1,177                  |                  | 1,054     |                  | 1,015     |                  |
| Mission Systems sales                   | 11,399                 |                  | 10,895    |                  | 10,396    |                  |
| <b>Space Systems</b>                    |                        |                  |           |                  |           |                  |
| United States <sup>(1)</sup>            | 11,107                 | 98 %             | 11,112    | 98 %             | 9,757     | 97 %             |
| Asia/Pacific                            | 42                     | 1 %              | 82        | 1 %              | 109       | 1 %              |
| Europe                                  | 134                    | 1 %              | 159       | 1 %              | 213       | 2 %              |
| Other geographic regions <sup>(2)</sup> | 36                     | — %              | 37        | — %              | 15        | — %              |
| Intersegment sales                      | 412                    |                  | 483       |                  | 476       |                  |
| Space Systems sales                     | 11,731                 |                  | 11,873    |                  | 10,570    |                  |
| <b>Total</b>                            |                        |                  |           |                  |           |                  |
| United States <sup>(1)</sup>            | 36,033                 | 88 %             | 34,385    | 88 %             | 31,754    | 87 %             |
| Asia/Pacific                            | 1,552                  | 4 %              | 1,568     | 4 %              | 1,802     | 5 %              |
| Europe                                  | 2,837                  | 7 %              | 2,455     | 6 %              | 2,252     | 6 %              |
| Other geographic regions <sup>(2)</sup> | 611                    | 1 %              | 882       | 2 %              | 794       | 2 %              |
| Total Sales                             | \$ 41,033              |                  | \$ 39,290 |                  | \$ 36,602 |                  |

<sup>(1)</sup> No country other than the United States represents greater than 10% of total company sales.

<sup>(2)</sup> Other geographic regions are principally comprised of the Middle East.

<sup>(3)</sup> Percentages calculated based on external customer sales.

**Segment Sales**

The following table presents sales for each of our reportable segments and total intersegment eliminations:

| \$ in millions            | Year Ended December 31 |           |           |  |
|---------------------------|------------------------|-----------|-----------|--|
|                           | 2024                   | 2023      | 2022      |  |
| <b>Sales</b>              |                        |           |           |  |
| Aeronautics Systems       | \$ 12,030              | \$ 10,786 | \$ 10,531 |  |
| Defense Systems           | 8,560                  | 8,289     | 7,629     |  |
| Mission Systems           | 11,399                 | 10,895    | 10,396    |  |
| Space Systems             | 11,731                 | 11,873    | 10,570    |  |
| Intersegment eliminations | (2,687)                | (2,553)   | (2,524)   |  |
| Total sales               | \$ 41,033              | \$ 39,290 | \$ 36,602 |  |

**Intersegment Sales and Operating Income**

Sales between segments are recorded at values that include intercompany operating income for the performing segment based on that segment's estimated average operating margin rate for external sales. Such intercompany operating income is eliminated in consolidation, so that the company's total sales and total operating income reflect only those transactions with external customers. See Note 1 for additional information.

The following table presents intersegment sales and operating income:

| \$ in millions                                 | Year Ended December 31 |                  |          |                  |          |                  |
|------------------------------------------------|------------------------|------------------|----------|------------------|----------|------------------|
|                                                | 2024                   |                  | 2023     |                  | 2022     |                  |
|                                                | Sales                  | Operating Income | Sales    | Operating Income | Sales    | Operating Income |
| <b>Intersegment sales and operating income</b> |                        |                  |          |                  |          |                  |
| Aeronautics Systems                            | \$ 243                 | \$ 25            | \$ 240   | \$ 22            | \$ 239   | \$ 27            |
| Defense Systems                                | 855                    | 106              | 776      | 94               | 794      | 94               |
| Mission Systems                                | 1,177                  | 181              | 1,054    | 167              | 1,015    | 167              |
| Space Systems                                  | 412                    | 44               | 483      | 52               | 476      | 52               |
| Total                                          | \$ 2,687               | \$ 356           | \$ 2,553 | \$ 335           | \$ 2,524 | \$ 340           |

**Capital Expenditures and Depreciation and Amortization**

The following table presents capital expenditures and depreciation and amortization for each of our reportable segments and for Corporate:

| \$ in millions           | Year Ended December 31 |                      |          |          |                               |          |
|--------------------------|------------------------|----------------------|----------|----------|-------------------------------|----------|
|                          | 2024                   | 2023                 | 2022     | 2024     | 2023                          | 2022     |
|                          |                        | Capital Expenditures |          |          | Depreciation and Amortization |          |
| Aeronautics Systems      | \$ 596                 | \$ 504               | \$ 490   | \$ 380   | \$ 384                        | \$ 322   |
| Defense Systems          | 139                    | 164                  | 166      | 180      | 184                           | 174      |
| Mission Systems          | 314                    | 288                  | 248      | 255      | 246                           | 242      |
| Space Systems            | 652                    | 745                  | 473      | 362      | 370                           | 323      |
| Corporate <sup>(1)</sup> | 66                     | 74                   | 58       | 193      | 154                           | 281      |
| Total                    | \$ 1,767               | \$ 1,775             | \$ 1,435 | \$ 1,370 | \$ 1,338                      | \$ 1,342 |

<sup>(1)</sup> Corporate amounts include the amortization of purchased intangible assets and the additional depreciation expense related to the step-up in fair value of PP&E acquired through business combinations as they are not considered part of management's evaluation of segment operating performance.

**Assets**

Our CODM does not use assets by segment to evaluate segment performance or allocate resources. Therefore, we do not disclose assets by segment.

[XML 41 R23.htm IDEA: XBRL DOCUMENT](#)

**Pay vs Performance** **12 Months Ended**  
**Disclosure - USD (\$)**  
**\$ in Millions** **Dec. 31, 2024** **Dec. 31, 2023** **Dec. 31, 2022**

**Pay vs Performance Disclosure**  
[Net earnings](#) \$ 4,174 \$ 2,056 \$ 4,896

[XML 42 R24.htm IDEA: XBRL DOCUMENT](#)

**Insider Trading** **3 Months Ended**  
**Arrangements** **Dec. 31, 2024**

**Trading Arrangements, by Individual**  
[Rule 10b5-1 Arrangement Adopted](#) false  
[Non-Rule 10b5-1 Arrangement Adopted](#) false  
[Rule 10b5-1 Arrangement Terminated](#) false  
[Non-Rule 10b5-1 Arrangement Terminated](#) false

[XML 43 R25.htm IDEA: XBRL DOCUMENT](#)

**Cybersecurity Risk Management and Strategy Disclosure** **12 Months Ended**  
**Dec. 31, 2024**

**Cybersecurity Risk Management, Strategy, and Governance [Line Items]**  
[Cybersecurity Risk Management Processes Integrated \[Flag\]](#) true  
[Cybersecurity Risk Management Processes Integrated \[Text Block\]](#)

Our approach to cybersecurity risk management includes the following key elements:

- Multi-Layered Defense and Continuous Monitoring* - We work to protect our computing environments and products from cybersecurity threats through multi-layered defenses and apply lessons learned from our defense and monitoring efforts to help prevent future attacks. We utilize data analytics to detect anomalies and search for cyber threats. Our Cybersecurity Operations Center provides comprehensive cyber threat detection and response capabilities and maintains a 24x7 monitoring system which complements the technology, processes and threat detection techniques we use to monitor, manage and mitigate cybersecurity threats or vulnerabilities. From time to time, we engage third-party consultants or other advisors to assist in assessing, identifying and/or managing cybersecurity threats. We also periodically use our Internal Audit function to conduct additional reviews and assessments.
- Insider Threats* - We maintain an insider threat program, led by our Vice President, Corporate and Enterprise Security, designed to identify, assess, and address potential risks from within our company. Our program evaluates potential risks consistent with industry practices, customer requirements and applicable law, including privacy and other considerations.
- Information Sharing and Collaboration* - We work with government, customer, industry and/or supplier partners, such as the National Defense Information Sharing and Analysis Center and other government-industry partnerships, to gather and develop best practices and share information to address cyber threats. These relationships enable the rapid sharing of threat and vulnerability mitigation information across the defense industrial base and supply chain.



- *Third Party Risk Management* – We conduct cybersecurity assessments before sharing or allowing the hosting or processing of sensitive data in computing environments managed by third parties, and our standard terms and conditions contain contractual provisions requiring certain cybersecurity and data protections and controls. Finally, we require these third parties to notify us promptly of cyber incidents or data breaches so that we can assess potential impact on us.
- *Training and Awareness* – We provide annual cybersecurity and information security awareness training to our employees with network access to help identify, avoid and mitigate cybersecurity threats and insider risks. This training also includes awareness about the policies and guidance associated with data privacy and protection of personal information, and protection and security of our company, customer and other third-party data. Our employees with network access also participate in annual spear phishing exercises. We also periodically host cybersecurity and ransomware tabletop exercises with management and other company functional stakeholders to practice rapid cyber incident response.
- *Supplier Engagement* – We provide training and other resources to our suppliers to support cybersecurity resiliency and data security principles in our supply chain. We also require our suppliers, subcontractors and third-party service providers to comply with our standard cybersecurity-related terms and conditions, in addition to any requirements from our customers, as a condition of doing business with us, and require them to complete information security questionnaires to review and assess any potential cyber-related risks depending on the nature of the services or products being provided.
- *Third Party Cybersecurity Service Providers* – We engage third party service providers to expand the capabilities and capacity of our cybersecurity program, including for design, monitoring and testing of the program’s risk prevention and protection measures and process execution, including incident detection, investigation, analysis and response, eradication and recovery. Additionally, several external entities evaluate our cybersecurity program, including the U.S. Defense Contract Management Agency, the Defense Industrial Base Cybersecurity Assessment Center and a Cybersecurity Maturity Model Certification Third Party Assessment Organization, to assess and certify our cybersecurity regulatory compliance. We also engage with external auditors and consultants who conduct audits and assessments of our cybersecurity controls.
- *Product Security* – We provide cyber threat intelligence to, and collaboration with, our product security teams and share expertise in cyber vulnerability, exploit and resilience technology that can be applied to network infrastructure and company product offerings.

[Cybersecurity Risk Management Third Party Engaged \[Flag\]](#)  
[Cybersecurity Risk Third Party Oversight and Identification Processes \[Flag\]](#)  
[Cybersecurity Risk Materially Affected or Reasonably Likely to Materially Affect Registrant \[Flag\]](#)  
[Cybersecurity Risk Board of Directors Oversight \[Text Block\]](#)  
[Cybersecurity Risk Board Committee or Subcommittee Responsible for Oversight \[Text Block\]](#)  
[Cybersecurity Risk Process for Informing Board Committee or Subcommittee Responsible for Oversight \[Text Block\]](#)

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| true                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| false                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Our Board of Directors is responsible for overseeing our enterprise risk management activities in general, and each of our Board committees assists the Board in the role of risk oversight. The full Board receives an update on the company’s risk management process and the risk trends related to cybersecurity at least annually.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Our Board of Directors is responsible for overseeing our enterprise risk management activities in general, and each of our Board committees assists the Board in the role of risk oversight. The full Board receives an update on the company’s risk management process and the risk trends related to cybersecurity at least annually. The Audit and Risk Committee specifically assists the Board in its oversight of risks related to cybersecurity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| Our Board of Directors is responsible for overseeing our enterprise risk management activities in general, and each of our Board committees assists the Board in the role of risk oversight. The full Board receives an update on the company’s risk management process and the risk trends related to cybersecurity at least annually. The Audit and Risk Committee specifically assists the Board in its oversight of risks related to cybersecurity. The CISO briefs the Audit and Risk Committee on the company’s information security and cybersecurity risk posture at least four times a year.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| In addition, the company’s Enterprise Risk Management Council (ERMC) considers risks relating to cybersecurity, among other significant risks, and applicable mitigation plans to address such risks. The ERMC is comprised of the Executive Leadership Team, as well as the Chief Accounting Officer, Chief Ethics and Compliance Officer, Corporate Secretary, Chief Sustainability Officer, Treasurer and Vice President, Internal Audit. The CISO and the CIDO (previously the CIO) attend each ERMC meeting. The ERMC meets during the year and receives periodic updates from the CIDO and CISO on cybersecurity risks. We have an established process governing our response to a cybersecurity incident from detection to mitigation, recovery, assessment, internal and external notifications and functional stakeholder engagements with legal, privacy and risk management, among others. Depending on the nature and severity of an incident, this process provides for escalating notification to our CEO and the Board (including our Lead Independent Director and the Audit and Risk Committee chair), as appropriate. |  |

[Cybersecurity Risk Role of Management \[Text Block\]](#)  
[Cybersecurity Risk Management Positions or Committees Responsible \[Text Block\]](#)  
[Cybersecurity Risk Management Expertise of Management Responsible \[Text Block\]](#)  
[Cybersecurity Risk Process for Informing Management or Committees Responsible \[Text Block\]](#)  
[Cybersecurity Risk Management Positions or Committees Responsible Report to Board \[Flag\]](#)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| The CISO is responsible for the assessment and management of cybersecurity risk and the resiliency, protection and defense of our networks and systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| In 2024, our global cybersecurity function was maintained in our Chief Information Office, led by our Chief Information Officer (CIO), who reported to our CEO. In 2025, we have brought together our chief information and digital transformation offices into a newly formed Chief Information and Digital Office, led by our Chief Information and Digital Officer (CIDO), who reports to the CEO. The Chief Information Security Officer (CISO), who previously reported to the CIO, now reports to the CIDO and continues to lead our cybersecurity functions.                                                                                                                        |  |
| The CISO leads a team of cybersecurity professionals with broad experience and expertise, including in cybersecurity threat assessments and detection, mitigation technologies, cybersecurity training, incident response, cyber forensics, data protection, privacy, insider threats and regulatory compliance. The current CISO is an executive with extensive technical and operational experience in building and leading cybersecurity and resiliency teams in the industry and government.                                                                                                                                                                                           |  |
| The CISO and the CIDO (previously the CIO) attend each ERMC meeting. The ERMC meets during the year and receives periodic updates from the CIDO and CISO on cybersecurity risks. We have an established process governing our response to a cybersecurity incident from detection to mitigation, recovery, assessment, internal and external notifications and functional stakeholder engagements with legal, privacy and risk management, among others. Depending on the nature and severity of an incident, this process provides for escalating notification to our CEO and the Board (including our Lead Independent Director and the Audit and Risk Committee chair), as appropriate. |  |
| true                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |

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**Summary of Significant Accounting Policies (Policies)**  
**Organization, Consolidation and Presentation of Financial Statements [Abstract]**  
**Principles of Consolidation**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Dec. 31, 2024</b>   |
| <b>Principles of Consolidation and Reporting</b><br>The consolidated financial statements (the “financial statements”) include the accounts of Northrop Grumman and its subsidiaries and joint ventures or other investments for which we consolidate the financial results. Intercompany accounts, transactions and profits are eliminated in consolidation. Investments in equity securities and joint ventures where the company has significant influence, but not control, are accounted for using the equity method.<br><br>The financial statements are prepared in conformity with U.S. GAAP and in accordance with the rules of the SEC. The financial statements include adjustments of a normal recurring nature considered necessary by management for a fair presentation of the company’s consolidated financial position, results of operations and cash flows. For classification of certain current assets and liabilities, we consider the duration of our customer contracts when defining our operating cycle, which is generally longer than one year.<br><br>Effective July 1, 2024, the company realigned the Strategic Deterrent Systems (SDS) division, which includes the Ground-Based Strategic Deterrent (“Sentinel”) program, from Space Systems to Defense Systems. This realignment is reflected in the financial information contained in this report.<br><br><i>Subsequent Realignment</i> - Effective January 1, 2025, the company realigned the Strike and Surveillance Aircraft Solutions (SSAS) business unit from Defense Systems to Aeronautics Systems. This realignment is not reflected in the financial information contained in this report; it will be reflected in the company’s operating results beginning in the first quarter of 2025.<br><br>Sales between segments are recorded at values that include intercompany operating income for the performing segment based on that segment’s estimated average operating margin rate for external sales. Such intercompany operating income is eliminated in consolidation |                        |

**Accounting Estimates**

Preparation of the financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements, as well as the reported amounts of sales and expenses during the reporting period. Estimates have been prepared using the most current and best available information; however, actual results could differ materially from those estimates.

**Revenue Recognition**

**Revenue Recognition**  
The majority of our sales are derived from long-term contracts with the U.S. government for the development or production of goods, the provision of services, or a combination of both. The company classifies sales as product or service based on the predominant attributes of each performance obligation.  
  
The company recognizes revenue for each separately identifiable performance obligation in a contract representing a promise to transfer a distinct good or service to a customer. In most cases, goods and services provided under the company’s contracts are accounted for as single performance obligations due to the complex and integrated nature of our products and services. These contracts generally require significant integration of a group of goods and/or services to deliver a combined output. In some contracts, the company provides multiple distinct goods or services to a customer, most commonly when a contract covers multiple phases of the product life cycle (e.g., development, production, sustainment, etc.). In those cases, the company accounts for the distinct contract deliverables as separate performance obligations and allocates the transaction price to each performance obligation based on its relative standalone selling price, which is generally estimated using cost plus a reasonable margin. Warranties are provided on certain contracts, but do not typically provide for services beyond standard assurances and are therefore not considered to be separate performance obligations. Assets recognized from the costs to obtain or fulfill a contract are not material.  
  
The company recognizes revenue as control is transferred to the customer, either over time or at a point in time. In general, our U.S. government contracts contain termination for convenience and/or other clauses that generally provide the customer rights to goods produced and/or in-process. Similarly, our non-U.S. government contracts generally contain contractual termination clauses or entitle the company to payment for work performed to date for goods and services that do not have an alternative use. For most of our contracts, control is effectively transferred during the period of performance, so we generally recognize revenue over time using the cost-to-cost method (cost incurred relative to total cost estimated at completion). The company believes this represents the most appropriate measurement towards satisfaction of its performance obligations. Revenue for contracts in which the control of goods produced does not transfer until delivery to the customer is recognized at a point in time (i.e., typically upon delivery).  
  
Contracts are often modified for changes in contract specifications or requirements, which may result in scope and/or price changes. Most of the company’s contract modifications are for goods or services that are not distinct in the context of the contract and are therefore accounted for as part of the original performance obligation through a cumulative EAC adjustment.  
  
*Contract Estimates*  
Use of the cost-to-cost method requires us to make reasonably dependable estimates regarding the revenue and cost associated with the design, manufacture and delivery of our products and services. The company estimates profit on these contracts as the difference between total estimated sales and total estimated cost at completion and recognizes that profit as costs are incurred. Significant



judgment is used to estimate total sales and cost at completion.

Contract sales may include estimates of variable consideration, including cost or performance incentives (such as award and incentive fees), un-priced change orders, REAs and contract claims. Variable consideration is included in total estimated sales to the extent it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. We estimate variable consideration as the most likely amount to which we expect to be entitled.

We recognize changes in estimated contract sales or costs and the resulting changes in contract profit on a cumulative basis. Cumulative EAC adjustments represent the cumulative effect of the changes on current and prior periods; sales and operating margins in future periods are recognized as if the revised estimates had been used since contract inception. If it is determined that a loss is expected to result on an individual performance obligation, the entire amount of the estimable future loss, including an allocation of G&A costs, is charged against income in the period the loss is identified.

[General and Administrative Expenses](#)

**General and Administrative Expenses**

In accordance with applicable FAR and CAS requirements, most general management and corporate expenses incurred at the segment and corporate locations are considered allowable and allocable costs to our U.S. government contracts. Allowable and allocable G&A costs, including independent research and development (IR&D) and bid and proposal (B&P) costs, are allocated on a systematic basis to contracts in progress and are included as a component of total estimated contract costs.

[Research and Development](#)

**Research and Development**

Company-sponsored research and development activities primarily include efforts related to government programs. Customer-funded research and development activities are charged directly to the related contracts.

[Income Taxes](#)

**Income Taxes**

Provisions for federal and foreign income taxes are calculated on reported earnings before income taxes based on current tax law and include the cumulative effect of any changes in tax rates from those used previously in determining deferred tax assets and liabilities. Such provisions differ from the amounts currently payable because certain items of income and expense are recognized in different periods for financial reporting purposes than for income tax purposes. The company recognizes federal and foreign interest accrued related to unrecognized tax benefits in income tax expense. Federal tax penalties are also recognized as a component of income tax expense.

In accordance with applicable FAR and CAS requirements, current state and local income and franchise taxes are generally considered allowable and allocable costs to our U.S. government contracts and are, therefore, recorded in operating costs and expenses. The company generally recognizes changes in deferred state taxes and unrecognized state tax benefits in unallocated corporate expenses.

Uncertain tax positions reflect the company's expected treatment of tax positions taken in a filed tax return, or planned to be taken in a future tax return or claim. Until these positions are sustained by the taxing authorities or the statute of limitations concerning such issues lapses, the company does not generally recognize the tax benefits resulting from such positions and reports the tax effects as a liability for uncertain tax positions in its consolidated statements of financial position.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and tax purposes. Net deferred tax assets and liabilities are classified as non-current in the consolidated statements of financial position.

[Cash and cash equivalents](#)

**Cash and Cash Equivalents**

Cash and cash equivalents are comprised of cash in banks and highly liquid instruments with original maturities of three months or less, primarily consisting of bank time deposits and investments in institutional money market funds. Cash in bank accounts often exceeds federally insured limits.

[Fair Value of Financial Instruments](#)

**Fair Value of Financial Instruments**

The company measures the fair value of its financial instruments using observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions.

These two types of inputs create the following fair value hierarchy:

Level 1 - Quoted prices for identical instruments in active markets.

Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3 - Significant inputs to the valuation model are unobservable.

We calculated the fair value of long-term debt using Level 2 inputs, based on interest rates available for debt with terms and maturities similar to the company's existing debt arrangements.

[Marketable Securities](#)

Marketable securities accounted for as trading are recorded at fair value on a recurring basis and are included in Other non-current assets in the consolidated statements of financial position. Changes in unrealized gains and losses on trading securities are included in Other, net in the consolidated statements of earnings and comprehensive income. Investments in held-to-maturity instruments with original maturities greater than three months are recorded at amortized cost.

[Derivative Financial Instruments](#)

Derivative financial instruments are recognized as assets or liabilities in the financial statements and measured at fair value on a recurring basis. Changes in the fair value of derivative financial instruments that are designated as fair value hedges are recorded in Other, net in the consolidated statements of earnings and comprehensive income, while changes in the fair value of derivative financial instruments that are designated as cash flow hedges are recorded as a

component of other comprehensive income until the hedged transaction is recognized in earnings. For derivative financial instruments not designated as hedging instruments, gains or losses resulting from changes in the fair value are reported in Other, net in the consolidated statements of earnings and comprehensive income.

The company uses derivative financial instruments to manage its exposure to foreign currency exchange risk related to receipts from customers and payments to suppliers denominated in foreign currencies (i.e., foreign currency forward contracts). For foreign currency forward contracts, where model-derived valuations are appropriate, the company utilizes the income approach to determine the fair value using internal models based on observable market inputs such as forward rates, interest rates, our own credit risk and our counterparties' credit risks.

The company does not use derivative financial instruments for trading or speculative purposes, nor does it use leveraged financial instruments. Credit risk related to derivative financial instruments is considered minimal and is managed through the use of multiple counterparties with high credit standards and periodic settlements of positions, as well as by entering into master netting agreements with most of our counterparties.

[Inventoried Costs](#)

**Inventoried Costs**

The company records inventoried costs at the lower of cost or net realizable value. Inventoried costs are categorized into raw materials, work in process, and finished goods. Raw materials are recognized using the average cost method and are generally included in contract cost when allocated to specific contracts. Work in process primarily consists of a) costs associated with specific anticipated contracts or costs incurred in excess of existing contract requirements, which are probable of recovery, and b) costs associated with unsatisfied performance obligations on contracts accounted for using point in time revenue recognition. Finished goods primarily consists of inventory maintained in support of sustainment contracts.

Inventoried costs include direct production costs, factory and engineering overhead, production tooling costs, and allowable G&A. G&A included in Inventoried costs, net was \$100 million and \$65 million as of December 31, 2024 and 2023, respectively. Inventoried costs are classified as current assets and include amounts related to contracts having production cycles longer than one year due to the long-cycle nature of our business.

[Cash Surrender Value of Life Insurance Policies](#)

**Cash Surrender Value of Life Insurance Policies**

The company maintains whole life and split-dollar life insurance policies primarily on former officers and executives. Whole life insurance policies are recorded at their cash surrender value as determined by the insurance carrier, and split-dollar life insurance policies are recorded at the lesser of their cash surrender value or premiums paid. These policies are utilized as a partial funding source for deferred compensation and other non-qualified employee retirement plans.

[Property, Plant and Equipment](#)

**Property, Plant and Equipment**

Property, plant and equipment (PP&E) are depreciated over the estimated useful lives of individual assets. Machinery and other equipment is primarily depreciated using declining-balance methods. The other asset categories are generally depreciated using the straight-line method. Depreciation expense is generally an allowable and allocable cost in accordance with applicable FAR and CAS requirements and is recorded in the same segment where the related assets are held. However, the additional depreciation expense related to the step-up in fair value of PP&E acquired through business combinations is recorded in unallocated corporate expense within operating income as such depreciation is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. Major classes of PP&E and their useful lives are as follows:

|                                             | December 31               |           |          |  |
|---------------------------------------------|---------------------------|-----------|----------|--|
|                                             | Useful Life               | 2024      | 2023     |  |
| <i>Useful life in years, \$ in millions</i> |                           |           |          |  |
| Land and land improvements                  | Up to 40 <sup>(1)</sup>   | \$ 782    | \$ 742   |  |
| Buildings and improvements                  | Up to 45                  | 4,031     | 3,605    |  |
| Machinery and other equipment               | Up to 20                  | 10,389    | 9,641    |  |
| Capitalized software costs                  | 3-5                       | 779       | 553      |  |
| Leasehold improvements                      | Lease Term <sup>(2)</sup> | 3,288     | 3,076    |  |
| Property, plant and equipment, at cost      |                           | 19,269    | 17,617   |  |
| Accumulated depreciation                    |                           | (8,733)   | (7,964)  |  |
| Property, plant and equipment, net          |                           | \$ 10,536 | \$ 9,653 |  |

<sup>(1)</sup> Land is not a depreciable asset.

<sup>(2)</sup> Leasehold improvements are depreciated over the shorter of the useful life of the asset or lease term.

[Goodwill and Other Purchased Intangible Assets](#)

**Goodwill and Other Purchased Intangible Assets**

Goodwill and other purchased intangible asset balances are included in the identifiable assets of their assigned business segment. However, the company includes the amortization of other purchased intangible assets in unallocated corporate expense within operating income as such amortization is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. The company's customer-related intangible assets are generally amortized over their respective useful lives based on the pattern in which the future economic benefits of the intangible assets are expected to be consumed. Other intangible assets are generally amortized on a straight-line basis over their estimated useful lives.

[Leases](#)

**Leases**

The company leases certain buildings, land and equipment. At contract inception, we determine whether a contract is or contains a lease and whether the lease should be classified as an operating or finance lease. Operating lease balances are included in Operating lease right-of-use assets. Other current liabilities, and Operating lease liabilities in our consolidated statements of financial position.

The company recognizes operating lease right-of-use assets and operating lease liabilities based on the present value of the future minimum lease payments over the lease term at commencement date. We use our incremental borrowing rate based on the information available at commencement date to determine the present value of future payments and the appropriate lease classification. Many of our leases include renewal options aligned with our contract terms. We define the initial lease term to include renewal options determined to be reasonably certain. We do not recognize a right-of-use asset and a lease liability for leases with an initial term of 12 months or less; we recognize lease expense for these leases on a straight-line basis over the lease term. We elected the practical expedient to not separate lease components from nonlease components and applied that practical expedient to all material classes of leased assets.

Many of the company's real property lease agreements contain incentives for tenant improvements, rent holidays or rent escalation clauses. For tenant improvement incentives received, if the incentive is determined to be a leasehold improvement owned by the company, we generally record the incentives as a reduction to the right-of-use asset, which reduces rent expense over the lease term. For rent holidays and rent escalation clauses during the lease term, the company records rental expense on a straight-line basis over the term of the lease. For these lease incentives, the company uses the date of initial possession as the commencement date, which is generally when the company is given the right of access to the space and begins to make improvements in preparation for intended use.

Finance leases are not material to our consolidated financial statements and the company is not a lessor in any material arrangements. We do not have any material restrictions or covenants in our lease agreements, sale-leaseback transactions, land easements or residual value guarantees.

[Litigation, Commitments, and Contingencies](#)

**Litigation, Commitments and Contingencies**

We accrue for litigation, commitments and contingencies when management, after considering the facts and circumstances of each matter as then known to management, has determined it is probable a liability will be found to have been incurred and the amount of the loss can be reasonably estimated. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, the low end of the range is recorded. Legal fees are generally expensed as incurred. Due to the inherent uncertainties surrounding gain contingencies, we generally do not recognize potential gains until realized.

From time to time, the company is advised of claims by the U.S. government concerning certain potential disallowed costs, plus, at times, penalties and interest. When such findings are presented, the company and U.S. government representatives engage in discussions to enable the company to evaluate the merits of these claims, as well as to

assess the amounts being claimed. Where appropriate, provisions are made to reflect the company's estimated exposure for such potential disallowed costs. Such provisions are reviewed periodically using the most recent information available. The company believes it has adequately reserved for disputed amounts that are probable and reasonably estimable, and that the outcome of any such matters would not have a material adverse effect on its consolidated financial position

[Environmental costs](#)

**Environmental Costs**

We accrue for environmental liabilities when management determines that, based on the facts and circumstances known to the company, it is probable the company will incur costs to address environmental impacts and the costs are reasonably estimable. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, we record the low end of the range. The company typically projects environmental costs for up to 30 years, records environmental liabilities on an undiscounted basis, and excludes asset retirement obligations and certain legal costs. At sites involving multiple parties, we accrue environmental liabilities based upon our expected share of liability, considering the financial viability of other liable parties.

These amounts reflect a \$26 million increase during the second quarter of 2024 in our estimated recovery of certain environmental remediation costs and are evaluated for recoverability on a routine basis.

[Retirement Benefits](#)

**Retirement Benefits**

The company sponsors various defined benefit pension plans and defined contribution retirement plans covering substantially all employees. In most cases, our defined contribution plans provide for a

company match of employee contributions. The company also provides postretirement benefits other than pensions to eligible retirees and qualifying dependents, consisting principally of health care and life insurance benefits.

The liabilities, unamortized prior service credits and annual income or expense of the company's defined benefit pension and OPB plans are determined using methodologies that involve several actuarial assumptions.

Because U.S. government regulations provide for the costs of pension and OPB plans to be charged to our contracts in accordance with applicable FAR and CAS requirements, we calculate retiree benefit plan costs under both FAS and CAS methods. While both FAS and CAS recognize a normal service cost component in measuring periodic pension cost, there are differences in the way the components of annual pension costs are calculated under each method. Measuring plan obligations under FAS and CAS also includes different assumptions and models, such as in estimating returns on plan assets, calculating interest expense and the periods over which gains/losses related to pension assets and actuarial changes are recognized. As a result, annual retiree benefit plan expense amounts for FAS are different from the amounts for CAS in any given reporting period even though the ultimate cost of providing benefits over the life of the plans is the same under each method. CAS retiree benefit plan costs are charged to contracts and are included in segment operating income, and the difference between the service cost component of FAS expense and total CAS expense (the "FAS/CAS operating adjustment") is recorded in operating income at the consolidated company level. Not all net periodic pension expense is recognized in net earnings in the year incurred because it is allocated as production costs and a portion remains in inventory at the end of any given reporting period.

Actuarial gains and losses are immediately recognized in net periodic benefit cost for FAS through MTM benefit (expense) upon annual remeasurement in the fourth quarter, or on an interim basis as triggering events warrant remeasurement. Prior service credits are recognized as a component of Accumulated other comprehensive loss and amortized into earnings in future periods.

Plan assets are invested in various asset classes that are expected to produce a sufficient level of diversification and investment return over the long term. Liability studies are conducted on a regular basis to provide guidance in setting investment goals with an objective to balance risk. Risk targets are established and monitored against acceptable ranges.

Our investment policies and procedures are designed to ensure the plans' investments comply with ERISA. Guidelines are established defining permitted investments within each asset class. Derivatives are used for transitioning assets, asset class rebalancing, managing currency risk and for management of fixed-income and alternative investments.

For the majority of the plans' assets, the investment policies require that the asset allocation be maintained within the following ranges as of December 31, 2024:

|                           | Asset Allocation Ranges |
|---------------------------|-------------------------|
| Cash and cash equivalents | 0% - 12%                |
| Global public equities    | 18% - 38%               |
| Fixed-income securities   | 35% - 55%               |
| Alternative investments   | 10% - 30%               |
| Private credit            | 0% - 15%                |

Generally, investments are valued based on information in financial publications of general circulation, statistical and valuation services, records of security exchanges, appraisal by qualified persons, transactions and bona fide offers. Cash and cash equivalents are predominantly held in money market or short-term investment funds. U.S. and international equities consist primarily of common stocks and institutional common trust funds. Investments in certain equity securities, which include domestic and international securities and registered investment companies, and exchange-traded funds with fixed income strategies are valued at the last reported sales or quoted price on the last business day of the reporting period. Fair values for certain fixed-income securities, which are not exchange-traded, are valued using third-party pricing services.

Investments in certain equity and fixed-income funds, which include common/collective trust funds, and alternative investments, including hedge funds, opportunistic investments, private equity funds and real estate funds, are valued based on the NAV derived by the investment managers, as a practical expedient, and are described further below.

U.S. and International equities: Generally, redemption periods are daily, monthly or quarterly with a notice requirement less than 90 days.Fixed-income funds: Generally, redemption periods are daily, monthly or quarterly with a notice requirement of two days. As oHedge funds: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments.Opportunistic investments: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments.Private equity funds: The term of each fund is typically 10 or more years and the fund's investors do not have an option to redeem their interest in the fund. Real estate funds: Consist primarily of open-end funds that generally allow investors to redeem their interests in the funds. Certain closed-end real estate funds have terms of 10 or more years. A

**Stock Compensation**

The company's stock compensation plans are classified as equity plans. Compensation expense for stock awards is measured at the grant date based on the fair value of the award and is recognized over the vesting period (generally three years), net of estimated forfeitures. The company issues stock awards in the form of restricted performance stock rights and restricted stock rights. The fair value of stock awards and performance stock awards is determined based on the closing market price of the company's common stock on the grant date. The fair value of market-based stock awards is determined at the grant date using a Monte Carlo simulation model. For purposes of measuring compensation expense for performance awards, the number of shares ultimately expected to vest is estimated at each reporting date based on management's expectations regarding the relevant performance criteria. At each reporting date, the number of shares used to calculate compensation expense and diluted earnings per share is adjusted to reflect the number ultimately expected to vest.

We calculate basic earnings per share by dividing net earnings by the weighted-average number of shares of common stock outstanding during each period.

Diluted earnings per share include the dilutive effect of awards granted to employees under stock-based compensation plans.

**Trade and Other Accounts Receivable, Unbilled Receivables, Policy**

Accounts receivable, net represent amounts billed and due from customers.Unbilled receivables, net represent revenue recognized under the cost-to-cost method that exceeds amounts billed to customers.

**Accounting Standards Updates**

On November 27, 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2023-07 *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*. Among other new disclosure requirements, ASU 2023-07 requires companies to disclose significant segment expenses that are regularly provided to the chief operating decision maker. We adopted the standard effective January 1, 2024 and applied the disclosure requirements retrospectively to all prior periods presented in the financial statements. Adoption of ASU 2023-07 did not have an impact on the company's consolidated financial position, results of operations and/or cash flows.

On December 14, 2023, the FASB issued ASU No. 2023-09 *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. ASU 2023-09 requires companies to disclose, on an annual basis, specific categories in the effective tax rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. In addition, ASU 2023-09 requires companies to disclose additional information about income taxes paid. ASU 2023-09 will be effective for annual periods beginning January 1, 2025 and will be applied on a prospective basis with the option to apply the standard retrospectively. We are evaluating the disclosure impact of ASU 2023-09; however, the standard will not have an impact on the company's consolidated financial position, results of operations and/or cash flows.

On November 4, 2024, the FASB issued ASU No. 2024-03 *Disaggregation of Income Statement Expenses (Subtopic 220-40)*. ASU 2024-03 requires disaggregation of certain expense captions into specified categories in disclosures within the footnotes to the financial statements. ASU 2024-03 will be effective for annual periods beginning January 1, 2027 and interim periods beginning January 1, 2028 and will be applied on a prospective basis with the option to apply the standard retrospectively. We are evaluating the disclosure impact of ASU 2023-09; however, we do not expect the standard will have a material impact on the company's consolidated financial position, results of operations and/or cash flows.

Other accounting standards updates adopted and/or issued, but not effective until after December 31, 2024, are not expected to have a material effect on the company's consolidated financial position, annual results of operations and/or cash flows.

**Revenue from Contract with Customer**

**Contract Assets and Liabilities**

For each of the company's contracts, the timing of revenue recognition, customer billings, and cash collections results in a net contract asset or liability at the end of each reporting period. Fixed-price contracts are typically billed to the customer either using progress payments, whereby amounts are billed monthly as costs are incurred or work is completed, or performance based payments, which are based upon the achievement of specific, measurable events or accomplishments defined and valued at contract inception. Cost-type contracts are typically billed to the customer on a monthly or semi-monthly basis.

Contract assets are equivalent to and reflected as Unbilled receivables in the consolidated statements of financial position and are primarily related to long-term contracts where revenue recognized under the cost-to-cost method exceeds amounts billed to customers. Unbilled receivables are classified as current assets and include amounts that may be billed and collected beyond one year due to the long-cycle nature of many of our contracts. Accumulated contract costs in unbilled receivables include costs such as direct production costs, factory and engineering overhead, production tooling costs, and allowable G&A. Unbilled receivables also include certain estimates of variable consideration described above. These contract assets are not considered a significant financing component of the company's contracts as the payment terms are intended to protect the customer in the event the company does not perform on its obligations under the contract.

Contract liabilities are equivalent to and reflected as Advance payments and billings in excess of costs incurred in the consolidated statements of financial position. Certain customers make advance payments prior to the company's satisfaction of its obligations on the contract. These amounts are recorded as contract liabilities until such obligations are satisfied, either over time as costs are incurred or at a point in time when deliveries are made. Contract liabilities are not a significant financing component as they are generally utilized to pay for contract costs within a one-year period or are used to ensure the customer meets contractual requirements.

[XML 45 R27.htm IDEA: XBRL DOCUMENT](#)

**Summary of Significant Accounting Policies (Tables)**

**Organization, Consolidation and Presentation of Financial Statements [Abstract]**  
**Schedule of Change in Accounting Estimate**

**12 Months Ended**

**Dec. 31, 2024**

The following table presents the effect of aggregate net EAC adjustments:

|                                              | Year Ended December 31 |        |        |
|----------------------------------------------|------------------------|--------|--------|
| <i>\$ in millions, except per share data</i> | 2024                   | 2023   | 2022   |
| Revenue                                      | \$ 396                 | \$ 298 | \$ 447 |
| Operating income                             | 350                    | 84     | 360    |
| Net earnings <sup>(1)</sup>                  | 277                    | 66     | 284    |
| Diluted earnings per share <sup>(1)</sup>    | 1.88                   | 0.43   | 1.83   |

<sup>(1)</sup> Based on a 21% federal statutory tax rate.

Net contract assets are as follows:

|                                                          | December 31, 2024 | December 31, 2023 | \$ Change | % Change |
|----------------------------------------------------------|-------------------|-------------------|-----------|----------|
| <i>\$ in millions</i>                                    |                   |                   |           |          |
| Unbilled receivables, net                                | \$ 5,908          | \$ 5,693          | \$ 215    | 4 %      |
| Advance payments and amounts in excess of costs incurred | (4,070)           | (4,193)           | 123       | (3)%     |
| Net contract assets                                      | \$ 1,838          | \$ 1,500          | \$ 338    | 23 %     |

Major classes of PP&E and their useful lives are as follows:

|                                             | Useful Life               | December 31 |          |
|---------------------------------------------|---------------------------|-------------|----------|
| <i>Useful life in years, \$ in millions</i> |                           | 2024        | 2023     |
| Land and land improvements                  | Up to 40 <sup>(1)</sup>   | \$ 782      | \$ 742   |
| Buildings and improvements                  | Up to 45                  | 4,031       | 3,605    |
| Machinery and other equipment               | Up to 20                  | 10,389      | 9,641    |
| Capitalized software costs                  | 3-5                       | 779         | 553      |
| Leasehold improvements                      | Lease Term <sup>(2)</sup> | 3,288       | 3,076    |
| Property, plant and equipment, at cost      |                           | 19,269      | 17,617   |
| Accumulated depreciation                    |                           | (8,733)     | (7,964)  |
| Property, plant and equipment, net          |                           | \$10,536    | \$ 9,653 |

<sup>(1)</sup> Land is not a depreciable asset.

<sup>(2)</sup> Leasehold improvements are depreciated over the shorter of the useful life of the asset or lease term.

The components of accumulated other comprehensive loss, net of tax, are as follows:

[Accumulated Other Comprehensive Loss](#)

|                                            | December 31 |          |
|--------------------------------------------|-------------|----------|
| <i>\$ in millions</i>                      | 2024        | 2023     |
| Cumulative translation adjustment          | \$ (140)    | \$ (138) |
| Other, net                                 | (12)        | 10       |
| Total accumulated other comprehensive loss | \$ (152)    | \$ (128) |

[XML 46 R28.htm IDEA: XBRL DOCUMENT](#)

**Earnings Per Share,  
Share Repurchases  
and Dividends on  
Common Stock  
(Tables)**

[Earnings Per Share  
\[Abstract\]](#)

[Share Repurchases](#)

**12 Months Ended**

**Dec. 31, 2024**

The table below summarizes the company's share repurchases to date under the authorizations described above:

| Repurchase Program<br>Authorization Date | Amount<br>Authorized<br>(in millions) | Total<br>Shares Retired<br>(in millions) | Average<br>Price<br>Per Share <sup>(1)</sup> | Date Completed | Shares Repurchased<br>(in millions) |            |            |
|------------------------------------------|---------------------------------------|------------------------------------------|----------------------------------------------|----------------|-------------------------------------|------------|------------|
|                                          |                                       |                                          |                                              |                | Year Ended December 31              |            |            |
|                                          |                                       |                                          |                                              |                | 2024                                | 2023       | 2022       |
| January 25, 2021                         | \$ 3,000                              | 7.0                                      | \$ 431.05                                    | April 2023     | —                                   | 1.4        | 3.3        |
| January 24, 2022 <sup>(2)</sup>          | \$ 2,000                              | 4.4                                      | \$ 455.01                                    | February 2024  | 2.5                                 | 1.9        | —          |
| December 6, 2023                         | \$ 2,500                              | 2.9                                      | \$ 472.26                                    |                | 2.9                                 | —          | —          |
| December 11, 2024                        | \$ 3,000                              | —                                        | \$ —                                         |                | —                                   | —          | —          |
|                                          |                                       |                                          |                                              |                | <b>5.4</b>                          | <b>3.3</b> | <b>3.3</b> |

[XML 47 R29.htm IDEA: XBRL DOCUMENT](#)

**Accounts Receivable,  
Net (Tables)**

[Receivables \[Abstract\]](#)

[Accounts receivable](#)

Accounts receivable, net consisted of the following:

| <i>\$ in millions</i>                      | December 31 |          |
|--------------------------------------------|-------------|----------|
|                                            | 2024        | 2023     |
| Due from U.S. government <sup>(1)</sup>    | \$ 951      | \$ 1,184 |
| Due from international and other customers | 326         | 276      |
| Accounts receivable, gross                 | 1,277       | 1,460    |
| Allowance for expected credit losses       | (5)         | (6)      |
| Accounts receivable, net                   | \$ 1,272    | \$ 1,454 |

<sup>(1)</sup> Includes receivables due from the U.S. government associated with foreign military sales, which are contracted with and paid by the U.S. government.

[XML 48 R30.htm IDEA: XBRL DOCUMENT](#)

**Unbilled Receivables,  
Net (Tables)**

[Unbilled Receivables, Net  
\[Abstract\]](#)

[Unbilled receivables](#)

Unbilled receivables, net consisted of the following:

| <i>\$ in millions</i>                                                         | December 31 |           |
|-------------------------------------------------------------------------------|-------------|-----------|
|                                                                               | 2024        | 2023      |
| Due from U.S. government <sup>(1)</sup>                                       |             |           |
| Unbilled receivables                                                          | \$ 22,871   | \$ 23,655 |
| Progress and performance-based payments received                              | (17,300)    | (18,321)  |
| Total due from U.S. government                                                | 5,571       | 5,334     |
| Due from international and other customers                                    |             |           |
| Unbilled receivables                                                          | 1,108       | 1,720     |
| Progress and performance-based payments received                              | (757)       | (1,344)   |
| Total due from international and other customers                              | 351         | 376       |
| Unbilled receivables, net of progress and performance-based payments received | 5,922       | 5,710     |
| Allowance for expected credit losses                                          | (14)        | (17)      |
| Unbilled receivables, net                                                     | \$ 5,908    | \$ 5,693  |

<sup>(1)</sup> Includes unbilled receivables due from the U.S. government associated with foreign military sales, which are contracted with and paid by the U.S. government.

[XML 49 R31.htm IDEA: XBRL DOCUMENT](#)

**Inventoried Costs,  
Net (Tables)**

[Inventory Disclosure \[Abstract\]](#)

[Inventoried Costs](#)

**12 Months Ended  
Dec. 31, 2024**

Inventoried costs, net consisted of the following:

| <i>\$ in millions</i>  | December 31 |         |
|------------------------|-------------|---------|
|                        | 2024        | 2023    |
| Raw materials          | \$ 293      | \$ 338  |
| Work in process        | 1,118       | 719     |
| Finished goods         | 44          | 52      |
| Inventoried costs, net | \$1,455     | \$1,109 |

[XML 50 R32.htm IDEA: XBRL DOCUMENT](#)

**Income Taxes  
(Tables)**

[Income Tax Disclosure  
\[Abstract\]](#)

[Income tax expense](#)

**12 Months Ended  
Dec. 31, 2024**

Federal and foreign income tax expense consisted of the following:

| <i>\$ in millions</i>                        | Year Ended December 31 |        |          |
|----------------------------------------------|------------------------|--------|----------|
|                                              | 2024                   | 2023   | 2022     |
| Federal income tax expense:                  |                        |        |          |
| Current                                      | \$ 628                 | \$ 949 | \$ 1,289 |
| Deferred                                     | 204                    | (670)  | (353)    |
| Total federal income tax expense             | 832                    | 279    | 936      |
| Foreign income tax expense:                  |                        |        |          |
| Current                                      | 13                     | 15     | 3        |
| Deferred                                     | (3)                    | (4)    | 1        |
| Total foreign income tax expense             | 10                     | 11     | 4        |
| Total federal and foreign income tax expense | \$ 842                 | \$ 290 | \$ 940   |

[Income tax reconciliation](#)

Income tax expense differs from the amount computed by multiplying earnings before income taxes by the statutory federal income tax rate due to the following:

| \$ in millions                         | Year Ended December 31 |       |        |    |       |        |    |       |        |
|----------------------------------------|------------------------|-------|--------|----|-------|--------|----|-------|--------|
|                                        | 2024                   |       | 2023   |    | 2022  |        |    |       |        |
| Income tax expense at statutory rate   | \$                     | 1,053 | 21.0 % | \$ | 493   | 21.0 % | \$ | 1,226 | 21.0 % |
| Research credit                        |                        | (361) | (7.2)  |    | (210) | (8.9)  |    | (177) | (3.0)  |
| Foreign derived intangible income      |                        | 13    | 0.3    |    | (63)  | (2.7)  |    | (66)  | (1.1)  |
| Settlements with taxing authorities    |                        |       |        |    | (1)   |        |    | (86)  | (1.5)  |
| Net interest expense                   |                        | 145   | 2.9    |    | 69    | 2.9    |    | 22    | 0.4    |
| Other, net                             |                        | (8)   | (0.2)  |    | 2     | 0.1    |    | 21    | 0.3    |
| Total federal and foreign income taxes | \$                     | 842   | 16.8 % | \$ | 290   | 12.4 % | \$ | 940   | 16.1 % |

[Unrecognized tax benefit  
rollforward](#)

The company's unrecognized tax benefits, excluding accrued interest and penalties of \$373 million, \$305 million and \$216 million as of December 31, 2024, 2023 and 2022, respectively, are presented below:

| <i>\$ in millions</i>                                        | December 31 |          |          |
|--------------------------------------------------------------|-------------|----------|----------|
|                                                              | 2024        | 2023     | 2022     |
| Unrecognized tax benefits at beginning of the year           | \$ 1,994    | \$ 1,663 | \$ 1,630 |
| Additions based on tax positions related to the current year | 236         | 276      | 262      |
| Additions for tax positions of prior years                   | 90          | 254      | 6        |
| Reductions for tax positions of prior years                  | (106)       | (9)      | (124)    |
| Settlements with taxing authorities                          | (766)       | (189)    | (110)    |
| Other, net                                                   | (1)         | (1)      | (1)      |
| Net change in unrecognized tax benefits                      | (547)       | 331      | 33       |
| Unrecognized tax benefits at end of the year                 | \$ 1,447    | \$ 1,994 | \$ 1,663 |

[Components of deferred tax assets and liabilities](#)

The tax effects of temporary differences and carryforwards that gave rise to year-end deferred federal, state and foreign tax balances, as presented in the consolidated statements of financial position, are as follows:

| \$ in millions                                     | December 31 |          |
|----------------------------------------------------|-------------|----------|
|                                                    | 2024        | 2023     |
| <b>Deferred Tax Assets</b>                         |             |          |
| Retiree benefits                                   | \$ —        | \$ 115   |
| Capitalized research and experimental expenditures | 4,816       | 3,380    |
| Accrued employee compensation                      | 386         | 400      |
| Provisions for accrued liabilities                 | 468         | 509      |
| Inventory                                          | 36          | 279      |
| Stock-based compensation                           | 37          | 35       |
| Operating lease liabilities                        | 557         | 575      |
| Tax credits                                        | 562         | 557      |
| Other                                              | 241         | 215      |
| Gross deferred tax assets                          | 7,103       | 6,065    |
| Less: valuation allowance                          | (526)       | (517)    |
| Net deferred tax assets                            | 6,577       | 5,548    |
| <b>Deferred Tax Liabilities</b>                    |             |          |
| Retiree benefits                                   | 153         | —        |
| Goodwill                                           | 534         | 534      |
| Purchased intangibles                              | 69          | 83       |
| Property, plant and equipment, net                 | 827         | 805      |
| Operating lease right-of-use assets                | 554         | 563      |
| Contract accounting differences                    | 2,714       | 2,437    |
| Other                                              | 127         | 106      |
| Deferred tax liabilities                           | 4,978       | 4,528    |
| Total net deferred tax assets                      | \$ 1,599    | \$ 1,020 |

[XML 51 R33.htm IDEA: XBRL DOCUMENT](#)

**Goodwill and Other  
Purchased Intangible  
Assets (Tables)**

**12 Months Ended**

**Dec. 31, 2024**

[Goodwill and Intangible Assets Disclosure \[Abstract\]](#)

[Schedule of Goodwill \[Table Text Block\]](#)

Changes in the carrying amounts of goodwill for the years ended December 31, 2023 and 2024, were as follows:

| \$ in millions                         | Aeronautics Systems |              | Defense Systems |              | Mission Systems |              | Space Systems |              | Total            |
|----------------------------------------|---------------------|--------------|-----------------|--------------|-----------------|--------------|---------------|--------------|------------------|
| Balance as of December 31, 2022        | \$                  | 3,467        | \$              | 4,228        | \$              | 5,881        | \$            | 3,940        | \$ 17,516        |
| Other <sup>(1)</sup>                   |                     | —            |                 | 1            |                 | —            |               | —            | 1                |
| Balance as of December 31, 2023        | \$                  | 3,467        | \$              | 4,229        | \$              | 5,881        | \$            | 3,940        | \$ 17,517        |
| Other <sup>(1)</sup>                   |                     | —            |                 | (5)          |                 | —            |               | —            | (5)              |
| <b>Balance as of December 31, 2024</b> | <b>\$</b>           | <b>3,467</b> | <b>\$</b>       | <b>4,224</b> | <b>\$</b>       | <b>5,881</b> | <b>\$</b>     | <b>3,940</b> | <b>\$ 17,512</b> |

<sup>(1)</sup> Other consists primarily of adjustments for foreign currency translation.

Net customer-related and other intangible assets are as follows:

| \$ in millions                                          | December 31   |               |
|---------------------------------------------------------|---------------|---------------|
|                                                         | 2024          | 2023          |
| Gross customer-related and other intangible assets      | \$ 3,371      | \$ 3,365      |
| Less accumulated amortization                           | (3,117)       | (3,060)       |
| <b>Net customer-related and other intangible assets</b> | <b>\$ 254</b> | <b>\$ 305</b> |

As of December 31, 2024, the expected future amortization of purchased intangibles for each of the next five years is as follows:

| \$ in millions |       |
|----------------|-------|
| 2025           | \$ 45 |
| 2026           | 42    |
| 2027           | 31    |
| 2028           | 31    |
| 2029           | 31    |

[XML 52 R34.htm IDEA: XBRL DOCUMENT](#)

**Fair Value of  
Financial Instruments  
(Tables)**

**12 Months Ended**

**Dec. 31, 2024**

[Fair Value Disclosures \[Abstract\]](#)

[Fair value of assets and liabilities  
measured on a recurring basis](#)

The following table presents the financial assets and liabilities the company records at fair value on a recurring basis identified by the level of inputs used to determine fair value. See Note 1 for the definitions of these levels and for further information on our financial instruments.

| \$ in millions                         | December 31, 2024 |         |         |        | December 31, 2023 |         |         |        |
|----------------------------------------|-------------------|---------|---------|--------|-------------------|---------|---------|--------|
|                                        | Level 1           | Level 2 | Level 3 | Total  | Level 1           | Level 2 | Level 3 | Total  |
| <b>Financial Assets</b>                |                   |         |         |        |                   |         |         |        |
| Marketable securities                  | \$ 325            | \$ —    | \$ 14   | \$ 339 | \$ 321            | \$ 1    | \$ 8    | \$ 330 |
| Marketable securities valued using NAV |                   |         |         | 8      |                   |         |         | 9      |
| Total marketable securities            | 325               | —       | 14      | 347    | 321               | 1       | 8       | 339    |
| Derivatives                            | —                 | (11)    | —       | (11)   | —                 | 5       | —       | 5      |

[XML 53 R35.htm IDEA: XBRL DOCUMENT](#)

**Debt (Tables)**

**12 Months Ended**

**Dec. 31, 2024**

[Debt Disclosure \[Abstract\]](#)

[Long-term debt](#)

Long-term debt consists of the following:

| \$ in millions                                      | December 31          |           |
|-----------------------------------------------------|----------------------|-----------|
|                                                     | 2024                 | 2023      |
| <b>Fixed-rate notes and debentures, maturing in</b> | <b>Interest rate</b> |           |
| 2025                                                | 2.93%                | \$ 1,500  |
| 2026                                                | 7.75% - 7.88%        | 527       |
| 2027                                                | 3.20%                | 750       |
| 2028                                                | 3.25%                | 2,000     |
| 2029                                                | 4.60%                | 500       |
| 2030                                                | 4.40%                | 750       |
| 2031                                                | 7.75%                | 466       |
| 2033                                                | 4.70%                | 1,000     |
| 2034                                                | 4.90%                | 850       |
| 2040                                                | 5.05% - 5.15%        | 800       |
| 2043                                                | 4.75%                | 950       |
| 2045                                                | 3.85%                | 600       |
| 2047                                                | 4.03%                | 2,250     |
| 2050                                                | 5.25%                | 1,000     |
| 2053                                                | 4.95%                | 1,000     |
| 2054                                                | 5.20%                | 1,150     |
| Other                                               | Various              | 264       |
| Debt issuance costs                                 |                      | (83)      |
| Total long-term debt                                |                      | 16,274    |
| Less: current portion <sup>(1)</sup>                |                      | 1,582     |
| Long-term debt, net of current portion              |                      | \$ 14,692 |

<sup>(1)</sup> The current portion of long-term debt is recorded in Other current liabilities in the consolidated statements of financial position.

Maturities of long-term debt as of December 31, 2024, are as follows:

| \$ in millions                                         |           |
|--------------------------------------------------------|-----------|
| Year Ending December 31                                |           |
| 2025                                                   | \$ 1,582  |
| 2026                                                   | 534       |
| 2027                                                   | 755       |
| 2028                                                   | 2,044     |
| 2029                                                   | 592       |
| Thereafter                                             | 10,871    |
| Total principal payments                               | 16,378    |
| Unamortized premium on long-term debt, net of discount | (21)      |
| Debt issuance costs                                    | (83)      |
| Total long-term debt                                   | \$ 16,274 |

[XML 54 R36.htm IDEA: XBRL DOCUMENT](#)

**Commitments and Contingencies (Tables)**  
**Commitments and Contingencies Disclosure [Abstract]**  
**Environmental Remediation [Table Text Block]**

**12 Months Ended**  
**Dec. 31, 2024**

The table below summarizes the amount accrued for environmental remediation costs, management’s estimate of the amount of reasonably possible future costs in excess of accrued costs and the deferred costs expected to be recoverable through overhead charges on U.S. government contracts as of December 31, 2024 and 2023:

| \$ in millions    |    | Accrued Costs <sup>(1)(2)</sup> |    | Reasonably Possible Future Costs in Excess of Accrued Costs <sup>(2)</sup> |    | Deferred Costs <sup>(3)</sup> |  |
|-------------------|----|---------------------------------|----|----------------------------------------------------------------------------|----|-------------------------------|--|
| December 31, 2024 | \$ | 546                             | \$ | 377                                                                        | \$ | 507                           |  |
| December 31, 2023 |    | 584                             |    | 387                                                                        |    | 518                           |  |

<sup>(1)</sup> As of December 31, 2024, \$196 million is recorded in Other current liabilities and \$350 million is recorded in Other non-current liabilities.

<sup>(2)</sup> Estimated remediation costs are not discounted to present value. The reasonably possible future costs in excess of accrued costs do not take into consideration amounts expected to be recoverable through overhead charges on U.S. government contracts.

<sup>(3)</sup> As of December 31, 2024, \$186 million is deferred in Prepaid expenses and other current assets and \$321 million is deferred in Other non-current assets. These amounts reflect a \$26 million increase during the second quarter of 2024 in our estimated recovery of certain environmental remediation costs and are evaluated for recoverability on a routine basis.

**[XML 55 R37.htm IDEA: XBRL DOCUMENT](#)**

**Retirement Benefits (Tables)**  
**Retirement Benefits [Abstract]**  
**Components of net periodic benefit cost**

**12 Months Ended**  
**Dec. 31, 2024**

The cost to the company of its retirement benefit plans is shown in the following table:

| \$ in millions                                           | Year Ended December 31 |               |                   |                           |                |                |
|----------------------------------------------------------|------------------------|---------------|-------------------|---------------------------|----------------|----------------|
|                                                          | Pension Benefits       |               |                   | Medical and Life Benefits |                |                |
|                                                          | 2024                   | 2023          | 2022              | 2024                      | 2023           | 2022           |
| <b>Components of net periodic benefit cost (benefit)</b> |                        |               |                   |                           |                |                |
| Service cost                                             | \$ 239                 | \$ 236        | \$ 367            | \$ 4                      | \$ 5           | \$ 9           |
| Interest cost                                            | 1,526                  | 1,568         | 1,136             | 62                        | 67             | 47             |
| Expected return on plan assets                           | (2,197)                | (2,098)       | (2,641)           | (87)                      | (85)           | (110)          |
| Amortization of prior service credit                     | —                      | —             | —                 | —                         | (1)            | (1)            |
| Mark-to-market (benefit) expense                         | (450)                  | 442           | (1,262)           | 7                         | (20)           | 30             |
| Other                                                    | 15                     | —             | —                 | —                         | —              | —              |
| <b>Net periodic benefit cost (benefit)</b>               | <b>\$ (867)</b>        | <b>\$ 148</b> | <b>\$ (2,400)</b> | <b>\$ (14)</b>            | <b>\$ (34)</b> | <b>\$ (25)</b> |

**Changes in unamortized benefit plan costs**

The table below summarizes the changes in unamortized prior service credit for the years ended December 31, 2022, 2023 and 2024:

| \$ in millions                                                        | Pension Benefits |             | Medical and Life Benefits |             | Total      |
|-----------------------------------------------------------------------|------------------|-------------|---------------------------|-------------|------------|
|                                                                       | 2024             | 2023        | 2024                      | 2023        |            |
| <b>Changes in unamortized prior service credit</b>                    |                  |             |                           |             |            |
| Amortization of prior service credit                                  | \$ —             | \$ —        | \$ 1                      | \$ —        | 1          |
| Tax expense                                                           | —                | —           | —                         | —           | —          |
| Decrease (increase) in unamortized prior service credit – 2022        | —                | —           | 1                         | —           | 1          |
| Amortization of prior service credit                                  | —                | —           | 1                         | —           | 1          |
| Tax expense                                                           | —                | —           | —                         | —           | —          |
| Decrease (increase) in unamortized prior service credit – 2023        | —                | —           | 1                         | —           | 1          |
| (Increase) decrease in prior service credit                           | —                | —           | (12)                      | —           | (12)       |
| Amortization of prior service credit                                  | —                | —           | —                         | —           | —          |
| Tax expense                                                           | —                | —           | 3                         | —           | 3          |
| <b>(Increase) decrease in unamortized prior service credit – 2024</b> | <b>\$ —</b>      | <b>\$ —</b> | <b>\$ (9)</b>             | <b>\$ —</b> | <b>(9)</b> |

**Change in plan assets and amounts recognized in the consolidated statements of financial position**

The following table sets forth the funded status and amounts recognized in the consolidated statements of financial position for the company’s defined benefit retirement plans. Pension benefits data includes the qualified plans, foreign plans and U.S. unfunded non-qualified plans for benefits provided to directors, officers and certain employees. The company uses a December 31 measurement date for its plans.

| \$ in millions                                    | Pension Benefits |                 | Medical and Life Benefits |              |
|---------------------------------------------------|------------------|-----------------|---------------------------|--------------|
|                                                   | 2024             | 2023            | 2024                      | 2023         |
| <b>Plan Assets</b>                                |                  |                 |                           |              |
| Fair value of plan assets at beginning of year    | \$ 30,251        | \$ 28,920       | \$ 1,274                  | \$ 1,226     |
| Net gain on plan assets                           | 1,358            | 3,104           | 61                        | 146          |
| Employer contributions                            | 96               | 105             | 33                        | 34           |
| Participant contributions                         | 6                | 6               | 26                        | 27           |
| Benefits paid                                     | (1,942)          | (1,894)         | (157)                     | (159)        |
| Other                                             | —                | 10              | —                         | —            |
| Fair value of plan assets at end of year          | 29,769           | 30,251          | 1,237                     | 1,274        |
| <b>Projected Benefit Obligation</b>               |                  |                 |                           |              |
| Projected benefit obligation at beginning of year | 30,443           | 29,067          | 1,246                     | 1,264        |
| Service cost                                      | 239              | 236             | 4                         | 5            |
| Interest cost                                     | 1,526            | 1,568           | 62                        | 67           |
| Participant contributions                         | 6                | 6               | 26                        | 27           |
| Actuarial (gain) loss                             | (1,295)          | 1,447           | (19)                      | 42           |
| Benefits paid                                     | (1,942)          | (1,894)         | (157)                     | (159)        |
| Other                                             | 15               | 13              | (12)                      | —            |
| Projected benefit obligation at end of year       | 28,992           | 30,443          | 1,150                     | 1,246        |
| <b>Funded status</b>                              | <b>\$ 777</b>    | <b>\$ (192)</b> | <b>\$ 87</b>              | <b>\$ 28</b> |

The decrease in the fair value of plan assets for the year ended December 31, 2024 was principally driven by \$2.1 billion of benefit payments, partially offset by net returns on plan assets of 4.7 percent. The decrease in our projected benefit obligation for the year ended December 31, 2024, was primarily driven by \$2.1 billion of benefit payments and a 58 basis point increase in the discount rate from year end 2023, partially offset by \$1.6 billion of interest cost.

| \$ in millions                                                                                   | Pension Benefits |          | Medical and Life Benefits |        |
|--------------------------------------------------------------------------------------------------|------------------|----------|---------------------------|--------|
|                                                                                                  | 2024             | 2023     | 2024                      | 2023   |
| <b>Classification of amounts recognized in the consolidated statements of financial position</b> |                  |          |                           |        |
| Non-current assets                                                                               | \$ 1,851         | \$ 1,042 | \$ 333                    | \$ 289 |
| Current liability                                                                                | (177)            | (178)    | (23)                      | (27)   |
| Non-current liability                                                                            | (897)            | (1,056)  | (223)                     | (234)  |

**Pension plans with accumulated benefit obligations in excess of fair value of plan assets**

Amounts for pension plans with accumulated benefit obligations in excess of fair value of plan assets are as follows:

| \$ in millions                 | December 31 |          |
|--------------------------------|-------------|----------|
|                                | 2024        | 2023     |
| Projected benefit obligation   | \$ 1,076    | \$ 1,152 |
| Accumulated benefit obligation | 1,066       | 1,143    |
| Fair value of plan assets      | 3           | 3        |

On a weighted-average basis, the following assumptions were used to determine benefit obligations at December 31 of each year and net periodic benefit cost for the following year:

|                                                                                                   | Pension Benefits |        |        | Medical and Life Benefits |        |        |
|---------------------------------------------------------------------------------------------------|------------------|--------|--------|---------------------------|--------|--------|
|                                                                                                   | 2024             | 2023   | 2022   | 2024                      | 2023   | 2022   |
| Discount rate                                                                                     | 5.73 %           | 5.15 % | 5.54 % | 5.69 %                    | 5.20 % | 5.57 % |
| Expected long-term return on plan assets                                                          | 7.50 %           | 7.50 % | 7.50 % | 7.08 %                    | 7.12 % | 7.23 % |
| Initial cash balance crediting rate assumed for the next year                                     | 4.78 %           | 4.02 % | 3.96 % |                           |        |        |
| Rate to which the cash balance crediting rate is assumed to increase/decrease (the ultimate rate) | 4.90 %           | 4.02 % | 3.88 % |                           |        |        |
| Year that the cash balance crediting rate reaches the ultimate rate                               | 2030             | 2029   | 2028   |                           |        |        |
| Rate of compensation increase                                                                     | 3.00 %           | 3.00 % | 3.00 % |                           |        |        |
| Initial health care cost trend rate assumed for the next year                                     |                  |        |        | 5.90 %                    | 6.20 % | 6.50 % |
| Rate to which the health care cost trend rate is assumed to decline (the ultimate trend rate)     |                  |        |        | 5.00 %                    | 5.00 % | 5.00 % |
| Year that the health care cost trend rate reaches the ultimate trend rate                         |                  |        |        | 2028                      | 2028   | 2028   |

**Plan asset allocation**

For the majority of the plans’ assets, the investment policies require that the asset allocation be maintained within the following ranges as of December 31, 2024:

| Asset Allocation Ranges   |           |
|---------------------------|-----------|
| Cash and cash equivalents | 0% - 12%  |
| Global public equities    | 18% - 38% |
| Fixed-income securities   | 35% - 55% |
| Alternative investments   | 10% - 30% |
| Private credit            | 0% - 15%  |

The table below provides the fair values of the company’s pension and Voluntary Employees’ Beneficiary Association (VEBA) trust plan assets at December 31, 2024 and 2023, by asset category. The table also identifies the level of inputs used to determine the fair value of assets in each category. See Note 1 for the definitions of these levels. Certain investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient are not required to be categorized in the fair value hierarchy table. The total fair value of these investments is included in the table below to permit reconciliation of the fair value hierarchy to amounts presented in the funded status table. As of December 31, 2024 and 2023, there were no investments expected to be sold at a value materially different than NAV.

| \$ in millions                                        | Level 1  |          | Level 2  |          | Level 3 |      | Total     |           |
|-------------------------------------------------------|----------|----------|----------|----------|---------|------|-----------|-----------|
|                                                       | 2024     | 2023     | 2024     | 2023     | 2024    | 2023 | 2024      | 2023      |
| <b>Asset category</b>                                 |          |          |          |          |         |      |           |           |
| Cash and cash equivalents                             | \$ 223   | \$ 85    | \$ 751   | \$ 830   |         |      | \$ 974    | \$ 915    |
| U.S. equities                                         | 1,824    | 1,712    | —        | 1        |         |      | 1,824     | 1,713     |
| International equities                                | 1,570    | 1,506    |          |          |         |      | 1,570     | 1,506     |
| Fixed-income securities                               |          |          |          |          |         |      |           |           |
| U.S. Treasuries                                       | 17       | —        | 3,520    | 3,890    |         |      | 3,537     | 3,890     |
| U.S. Government Agency                                |          |          | 97       | 124      |         |      | 97        | 124       |
| Non-U.S. Government                                   | 1        | —        | 282      | 176      |         |      | 283       | 176       |
| Corporate debt                                        | 79       | 74       | 3,664    | 4,432    |         |      | 3,743     | 4,506     |
| Asset backed                                          |          |          | 1,301    | 436      |         |      | 1,301     | 436       |
| High yield debt                                       | 12       | 13       | 20       | 20       |         |      | 32        | 33        |
| Bank loans                                            |          |          | 16       | 15       |         |      | 16        | 15        |
| Derivatives and other assets                          | (55)     | 64       | 99       | 43       | \$ 2    | \$ 2 | 46        | 109       |
| Investments valued using NAV as a practical expedient |          |          |          |          |         |      |           |           |
| U.S. equities                                         |          |          |          |          |         |      | 1,486     | 1,294     |
| International equities                                |          |          |          |          |         |      | 4,071     | 3,972     |
| Fixed-income funds                                    |          |          |          |          |         |      | 3,559     | 4,057     |
| Hedge funds                                           |          |          |          |          |         |      | 32        | 38        |
| Opportunistic investments                             |          |          |          |          |         |      | 1,816     | 3,176     |
| Private equity funds                                  |          |          |          |          |         |      | 3,521     | 3,466     |
| Real estate funds                                     |          |          |          |          |         |      | 1,860     | 2,123     |
| Private credit                                        |          |          |          |          |         |      | 1,779     | —         |
| Payables, net                                         |          |          |          |          |         |      | (541)     | (24)      |
| Fair value of plan assets at the end of the year      | \$ 3,671 | \$ 3,454 | \$ 9,750 | \$ 9,967 | \$ 2    | \$ 2 | \$ 31,006 | \$ 31,525 |

[Estimated benefit payments](#)

The following table reflects estimated future benefit payments for the next ten years, based upon the same assumptions used to measure the benefit obligation, and includes expected future employee service, as of December 31, 2024:

| \$ in millions          | Pension Plans | Medical and Life Plans | Total    |
|-------------------------|---------------|------------------------|----------|
| Year Ending December 31 |               |                        |          |
| 2025                    | \$ 2,058      | \$ 111                 | \$ 2,169 |
| 2026                    | 2,101         | 112                    | 2,213    |
| 2027                    | 2,138         | 111                    | 2,249    |
| 2028                    | 2,164         | 109                    | 2,273    |
| 2029                    | 2,183         | 106                    | 2,289    |
| 2030 through 2034       | 10,909        | 473                    | 11,382   |

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Stock Compensation  
Plans and Other  
Compensation  
Arrangements  
(Tables)

[Share-Based Payment Arrangement \[Abstract\]](#)  
[Stock Award Rollforward Activity](#)

12 Months Ended

Dec. 31, 2024

Stock award activity for the years ended December 31, 2022, 2023 and 2024, is presented in the table below. Vested awards do not include any adjustments to reflect the final performance measure for issued shares.

|                                  | Stock Awards<br>(in thousands) | Weighted-Average<br>Grant Date<br>Fair Value<br>Per Share | Weighted-Average<br>Remaining<br>Contractual<br>Term (in years) |
|----------------------------------|--------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------|
| Outstanding at January 1, 2022   | 580                            | \$ 314                                                    | 1.4                                                             |
| Granted                          | 238                            | 397                                                       |                                                                 |
| Vested                           | (226)                          | 327                                                       |                                                                 |
| Forfeited                        | (31)                           | 320                                                       |                                                                 |
| Outstanding at December 31, 2022 | 561                            | \$ 344                                                    | 1.4                                                             |
| Granted                          | 216                            | 478                                                       |                                                                 |
| Vested                           | (249)                          | 315                                                       |                                                                 |
| Forfeited                        | (29)                           | 373                                                       |                                                                 |
| Outstanding at December 31, 2023 | 499                            | \$ 417                                                    | 1.3                                                             |
| Granted                          | 238                            | 465                                                       |                                                                 |
| Vested                           | (221)                          | 366                                                       |                                                                 |
| Forfeited                        | (47)                           | 450                                                       |                                                                 |
| Outstanding at December 31, 2024 | 469                            | \$ 462                                                    | 1.4                                                             |

[Cash Units and Cash Performance Units Aggregate Payout Amount \[Table Text Block\]](#)

The following table presents the minimum and maximum aggregate payout amounts related to those cash awards granted for the periods presented:

| \$ in millions                  | Year Ended December 31 |       |       |
|---------------------------------|------------------------|-------|-------|
|                                 | 2024                   | 2023  | 2022  |
| Minimum aggregate payout amount | \$ 35                  | \$ 34 | \$ 32 |
| Maximum aggregate payout amount | 200                    | 192   | 183   |

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Leases (Tables)

[Leases \[Abstract\]](#)

[Lease, Cost \[Table Text Block\]](#)

12 Months Ended

Dec. 31, 2024

Total lease cost is comprised of the following:

| \$ in millions        | Year Ended December 31 |        |        |
|-----------------------|------------------------|--------|--------|
|                       | 2024                   | 2023   | 2022   |
| Operating lease cost  | \$ 370                 | \$ 358 | \$ 332 |
| Variable lease cost   | 49                     | 48     | 35     |
| Short-term lease cost | 51                     | 69     | 51     |
| Total lease cost      | \$ 470                 | \$ 475 | \$ 418 |

[Supplemental Balance Sheet Disclosures \[Text Block\]](#)

Supplemental operating lease balance sheet information consists of the following:

| \$ in millions                      | Year Ended December 31 |          |  |
|-------------------------------------|------------------------|----------|--|
|                                     | 2024                   | 2023     |  |
| Operating lease right-of-use assets | \$ 1,770               | \$ 1,818 |  |
| Other current liabilities           | 324                    | 300      |  |
| Operating lease liabilities         | 1,798                  | 1,892    |  |
| Total operating lease liabilities   | \$ 2,122               | \$ 2,192 |  |

[Other Supplemental Lease Information \[Table Text Block\]](#)

Other supplemental operating lease information consists of the following:

| \$ in millions                                                                   | Year Ended December 31 |            |  |
|----------------------------------------------------------------------------------|------------------------|------------|--|
|                                                                                  | 2024                   | 2023       |  |
| Cash paid for amounts included in the measurement of operating lease liabilities | \$ 373                 | \$ 341     |  |
| Right-of-use assets obtained in exchange for new lease liabilities               | 272                    | 314        |  |
| Weighted average remaining lease term                                            | 10.4 years             | 11.0 years |  |
| Weighted average discount rate                                                   | 4.0 %                  | 3.9 %      |  |

[Lessee, Operating Lease, Liability, Maturity \[Table Text Block\]](#)

Maturities of operating lease liabilities as of December 31, 2024 are as follows:

| \$ in millions                               |          |
|----------------------------------------------|----------|
| Year Ending December 31                      |          |
| 2025                                         | \$ 388   |
| 2026                                         | 357      |
| 2027                                         | 299      |
| 2028                                         | 258      |
| 2029                                         | 225      |
| Thereafter                                   | 1,091    |
| Total lease payments                         | 2,618    |
| Less: imputed interest                       | (496)    |
| Present value of operating lease liabilities | \$ 2,122 |

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Segment Information  
(Tables)

[Segment Reporting \[Abstract\]](#)

[Sales and operating income by segment](#)

12 Months Ended

Dec. 31, 2024

The following table presents sales, operating costs and expenses, and operating income by segment:



| \$ in millions                                   | Year Ended December 31 |        |      |        |      |        |
|--------------------------------------------------|------------------------|--------|------|--------|------|--------|
|                                                  | 2024                   |        | 2023 |        | 2022 |        |
| <b>Aeronautics Systems</b>                       |                        |        |      |        |      |        |
| Sales                                            | \$                     | 12,030 | \$   | 10,786 | \$   | 10,531 |
| Operating costs and expenses:                    |                        |        |      |        |      |        |
| Product                                          |                        | 8,248  |      | 8,942  |      | 7,161  |
| Service                                          |                        | 2,382  |      | 2,099  |      | 2,042  |
| Intersegment                                     |                        | 218    |      | 218    |      | 212    |
| Aeronautics Systems operating income (loss)      |                        | 1,182  |      | (473)  |      | 1,116  |
| <b>Defense Systems</b>                           |                        |        |      |        |      |        |
| Sales                                            |                        | 8,560  |      | 8,289  |      | 7,629  |
| Operating costs and expenses:                    |                        |        |      |        |      |        |
| Product                                          |                        | 5,304  |      | 4,819  |      | 4,163  |
| Service                                          |                        | 1,641  |      | 1,959  |      | 1,985  |
| Intersegment                                     |                        | 749    |      | 682    |      | 700    |
| Defense Systems operating income                 |                        | 866    |      | 829    |      | 781    |
| <b>Mission Systems</b>                           |                        |        |      |        |      |        |
| Sales                                            |                        | 11,399 |      | 10,895 |      | 10,396 |
| Operating costs and expenses:                    |                        |        |      |        |      |        |
| Product                                          |                        | 7,000  |      | 6,669  |      | 6,291  |
| Service                                          |                        | 1,805  |      | 1,730  |      | 1,639  |
| Intersegment                                     |                        | 996    |      | 887    |      | 848    |
| Mission Systems operating income                 |                        | 1,598  |      | 1,609  |      | 1,618  |
| <b>Space Systems</b>                             |                        |        |      |        |      |        |
| Sales                                            |                        | 11,731 |      | 11,873 |      | 10,570 |
| Operating costs and expenses:                    |                        |        |      |        |      |        |
| Product                                          |                        | 8,711  |      | 8,844  |      | 7,664  |
| Service                                          |                        | 1,398  |      | 1,468  |      | 1,404  |
| Intersegment                                     |                        | 368    |      | 431    |      | 424    |
| Space Systems operating income                   |                        | 1,254  |      | 1,130  |      | 1,078  |
| Intersegment profit eliminations                 |                        | (356)  |      | (335)  |      | (340)  |
| <b>Total segment operating income</b>            |                        | 4,544  |      | 2,760  |      | 4,253  |
| FAS/CAS operating adjustment                     |                        | 40     |      | (82)   |      | (200)  |
| Unallocated corporate expense                    |                        | (214)  |      | (141)  |      | (452)  |
| <b>Total operating income</b>                    | \$                     | 4,370  | \$   | 2,537  | \$   | 3,601  |
| Other (expense) income                           |                        |        |      |        |      |        |
| Interest expense                                 |                        | (621)  |      | (545)  |      | (506)  |
| Non-operating FAS pension benefit                |                        | 656    |      | 530    |      | 1,505  |
| Mark-to-market pension and OPB benefit (expense) |                        | 443    |      | (422)  |      | 1,232  |
| Other, net                                       |                        | 168    |      | 246    |      | 4      |
| <b>Earnings before income taxes</b>              | \$                     | 5,016  | \$   | 2,346  | \$   | 5,836  |

[Schedule of Revenue by Major Customers by Reporting Segments \[Table Text Block\]](#)

| \$ in millions                 | Year Ended December 31 |                  |           |                  |           |                  |
|--------------------------------|------------------------|------------------|-----------|------------------|-----------|------------------|
|                                | 2024                   |                  | 2023      |                  | 2022      |                  |
|                                | \$                     | % <sup>(3)</sup> | \$        | % <sup>(3)</sup> | \$        | % <sup>(3)</sup> |
| <b>Aeronautics Systems</b>     |                        |                  |           |                  |           |                  |
| U.S. government <sup>(1)</sup> | \$ 10,087              | 86 %             | \$ 9,132  | 87 %             | \$ 8,930  | 87 %             |
| International <sup>(2)</sup>   | 1,678                  | 14 %             | 1,379     | 13 %             | 1,344     | 13 %             |
| Other customers                | 22                     | — %              | 35        | — %              | 18        | — %              |
| Intersegment sales             | 243                    |                  | 240       |                  | 239       |                  |
| Aeronautics Systems sales      | 12,030                 | 100 %            | 10,786    | 100 %            | 10,531    | 100 %            |
| <b>Defense Systems</b>         |                        |                  |           |                  |           |                  |
| U.S. government <sup>(1)</sup> | 6,333                  | 82 %             | 5,946     | 79 %             | 5,406     | 79 %             |
| International <sup>(2)</sup>   | 1,301                  | 17 %             | 1,491     | 20 %             | 1,358     | 20 %             |
| Other customers                | 71                     | 1 %              | 76        | 1 %              | 71        | 1 %              |
| Intersegment sales             | 855                    |                  | 776       |                  | 794       |                  |
| Defense Systems sales          | 8,560                  | 100 %            | 8,289     | 100 %            | 7,629     | 100 %            |
| <b>Mission Systems</b>         |                        |                  |           |                  |           |                  |
| U.S. government <sup>(1)</sup> | 8,322                  | 81 %             | 7,999     | 81 %             | 7,471     | 80 %             |
| International <sup>(2)</sup>   | 1,809                  | 18 %             | 1,757     | 18 %             | 1,809     | 19 %             |
| Other customers                | 91                     | 1 %              | 85        | 1 %              | 101       | 1 %              |
| Intersegment sales             | 1,177                  |                  | 1,054     |                  | 1,015     |                  |
| Mission Systems sales          | 11,399                 | 100 %            | 10,895    | 100 %            | 10,396    | 100 %            |
| <b>Space Systems</b>           |                        |                  |           |                  |           |                  |
| U.S. government <sup>(1)</sup> | 10,694                 | 94 %             | 10,805    | 95 %             | 9,516     | 95 %             |
| International <sup>(2)</sup>   | 212                    | 2 %              | 278       | 2 %              | 337       | 3 %              |
| Other customers                | 413                    | 4 %              | 307       | 3 %              | 241       | 2 %              |
| Intersegment sales             | 412                    |                  | 483       |                  | 476       |                  |
| Space Systems sales            | 11,731                 | 100 %            | 11,873    | 100 %            | 10,570    | 100 %            |
| <b>Total</b>                   |                        |                  |           |                  |           |                  |
| U.S. government <sup>(1)</sup> | 35,436                 | 87 %             | 33,882    | 86 %             | 31,323    | 86 %             |
| International <sup>(2)</sup>   | 5,000                  | 12 %             | 4,905     | 13 %             | 4,848     | 13 %             |
| Other customers                | 597                    | 1 %              | 503       | 1 %              | 431       | 1 %              |
| <b>Total Sales</b>             | \$ 41,033              | 100 %            | \$ 39,290 | 100 %            | \$ 36,602 | 100 %            |

- <sup>(1)</sup> Sales to the U.S. government include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is the U.S. government. Each of the company's segments derives a substantial percentage of its revenue from the U.S. government.
- <sup>(2)</sup> International sales include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is an international customer. These sales include foreign military sales contracted through the U.S. government.
- <sup>(3)</sup> Percentages calculated based on external customer sales.

[Schedule of Segment Reporting Information, by Segment](#)

| \$ in millions             | Year Ended December 31 |                  |           |                  |           |                  |
|----------------------------|------------------------|------------------|-----------|------------------|-----------|------------------|
|                            | 2024                   |                  | 2023      |                  | 2022      |                  |
|                            | \$                     | % <sup>(1)</sup> | \$        | % <sup>(1)</sup> | \$        | % <sup>(1)</sup> |
| <b>Aeronautics Systems</b> |                        |                  |           |                  |           |                  |
| Cost-type                  | \$ 5,373               | 46 %             | \$ 5,235  | 50 %             | \$ 5,013  | 49 %             |
| Fixed-price                | 6,414                  | 54 %             | 5,311     | 50 %             | 5,279     | 51 %             |
| Intersegment sales         | 243                    |                  | 240       |                  | 239       |                  |
| Aeronautics Systems sales  | 12,030                 |                  | 10,786    |                  | 10,531    |                  |
| <b>Defense Systems</b>     |                        |                  |           |                  |           |                  |
| Cost-type                  | 4,002                  | 52 %             | 3,991     | 53 %             | 3,516     | 51 %             |
| Fixed-price                | 3,703                  | 48 %             | 3,522     | 47 %             | 3,319     | 49 %             |
| Intersegment sales         | 855                    |                  | 776       |                  | 794       |                  |
| Defense Systems sales      | 8,560                  |                  | 8,289     |                  | 7,629     |                  |
| <b>Mission Systems</b>     |                        |                  |           |                  |           |                  |
| Cost-type                  | 4,589                  | 45 %             | 4,116     | 42 %             | 3,622     | 39 %             |
| Fixed-price                | 5,633                  | 55 %             | 5,725     | 58 %             | 5,759     | 61 %             |
| Intersegment sales         | 1,177                  |                  | 1,054     |                  | 1,015     |                  |
| Mission Systems sales      | 11,399                 |                  | 10,895    |                  | 10,396    |                  |
| <b>Space Systems</b>       |                        |                  |           |                  |           |                  |
| Cost-type                  | 7,000                  | 62 %             | 7,637     | 67 %             | 6,560     | 65 %             |
| Fixed-price                | 4,319                  | 38 %             | 3,753     | 33 %             | 3,534     | 35 %             |
| Intersegment sales         | 412                    |                  | 483       |                  | 476       |                  |
| Space Systems sales        | 11,731                 |                  | 11,873    |                  | 10,570    |                  |
| <b>Total</b>               |                        |                  |           |                  |           |                  |
| Cost-type                  | 20,964                 | 51 %             | 20,979    | 53 %             | 18,711    | 51 %             |
| Fixed-price                | 20,069                 | 49 %             | 18,311    | 47 %             | 17,891    | 49 %             |
| <b>Total Sales</b>         | \$ 41,033              |                  | \$ 39,290 |                  | \$ 36,602 |                  |

- <sup>(1)</sup> Percentages calculated based on external customer sales.

[Revenue from External Customers by Geographic Areas \[Table Text Block\]](#)

## Sales by Geographic Region

| \$ in millions                          | Year Ended December 31 |                  |                  |                  |                  |                  |
|-----------------------------------------|------------------------|------------------|------------------|------------------|------------------|------------------|
|                                         | 2024                   |                  | 2023             |                  | 2022             |                  |
|                                         | \$                     | % <sup>(3)</sup> | \$               | % <sup>(3)</sup> | \$               | % <sup>(3)</sup> |
| <b>Aeronautics Systems</b>              |                        |                  |                  |                  |                  |                  |
| United States <sup>(1)</sup>            | \$ 10,109              | 86 %             | \$ 9,167         | 87 %             | \$ 8,948         | 87 %             |
| Asia/Pacific                            | 694                    | 6 %              | 607              | 6 %              | 708              | 7 %              |
| Europe                                  | 947                    | 8 %              | 736              | 7 %              | 585              | 6 %              |
| Other geographic regions <sup>(2)</sup> | 37                     | — %              | 36               | — %              | 51               | — %              |
| Intersegment sales                      | 243                    |                  | 240              |                  | 239              |                  |
| Aeronautics Systems sales               | 12,030                 |                  | 10,786           |                  | 10,531           |                  |
| <b>Defense Systems</b>                  |                        |                  |                  |                  |                  |                  |
| United States <sup>(1)</sup>            | 6,404                  | 83 %             | 6,022            | 80 %             | 5,477            | 80 %             |
| Asia/Pacific                            | 344                    | 4 %              | 419              | 6 %              | 454              | 7 %              |
| Europe                                  | 766                    | 10 %             | 601              | 8 %              | 477              | 7 %              |
| Other geographic regions <sup>(2)</sup> | 191                    | 3 %              | 471              | 6 %              | 427              | 6 %              |
| Intersegment sales                      | 855                    |                  | 776              |                  | 794              |                  |
| Defense Systems sales                   | 8,560                  |                  | 8,289            |                  | 7,629            |                  |
| <b>Mission Systems</b>                  |                        |                  |                  |                  |                  |                  |
| United States <sup>(1)</sup>            | 8,413                  | 82 %             | 8,084            | 82 %             | 7,572            | 81 %             |
| Asia/Pacific                            | 472                    | 5 %              | 460              | 5 %              | 531              | 6 %              |
| Europe                                  | 990                    | 10 %             | 959              | 10 %             | 977              | 10 %             |
| Other geographic regions <sup>(2)</sup> | 347                    | 3 %              | 338              | 3 %              | 301              | 3 %              |
| Intersegment sales                      | 1,177                  |                  | 1,054            |                  | 1,015            |                  |
| Mission Systems sales                   | 11,399                 |                  | 10,895           |                  | 10,396           |                  |
| <b>Space Systems</b>                    |                        |                  |                  |                  |                  |                  |
| United States <sup>(1)</sup>            | 11,107                 | 98 %             | 11,112           | 98 %             | 9,757            | 97 %             |
| Asia/Pacific                            | 42                     | 1 %              | 82               | 1 %              | 109              | 1 %              |
| Europe                                  | 134                    | 1 %              | 159              | 1 %              | 213              | 2 %              |
| Other geographic regions <sup>(2)</sup> | 36                     | — %              | 37               | — %              | 15               | — %              |
| Intersegment sales                      | 412                    |                  | 483              |                  | 476              |                  |
| Space Systems sales                     | 11,731                 |                  | 11,873           |                  | 10,570           |                  |
| <b>Total</b>                            |                        |                  |                  |                  |                  |                  |
| United States <sup>(1)</sup>            | 36,033                 | 88 %             | 34,385           | 88 %             | 31,754           | 87 %             |
| Asia/Pacific                            | 1,552                  | 4 %              | 1,568            | 4 %              | 1,802            | 5 %              |
| Europe                                  | 2,837                  | 7 %              | 2,455            | 6 %              | 2,252            | 6 %              |
| Other geographic regions <sup>(2)</sup> | 611                    | 1 %              | 882              | 2 %              | 794              | 2 %              |
| <b>Total Sales</b>                      | <b>\$ 41,033</b>       |                  | <b>\$ 39,290</b> |                  | <b>\$ 36,602</b> |                  |

<sup>(1)</sup> No country other than the United States represents greater than 10% of total company sales.

<sup>(2)</sup> Other geographic regions are principally comprised of the Middle East.

<sup>(3)</sup> Percentages calculated based on external customer sales.

The following table presents sales for each of our reportable segments and total intersegment eliminations:

| \$ in millions            | Year Ended December 31 |                  |                  |
|---------------------------|------------------------|------------------|------------------|
|                           | 2024                   | 2023             | 2022             |
| <b>Sales</b>              |                        |                  |                  |
| Aeronautics Systems       | \$ 12,030              | \$ 10,786        | \$ 10,531        |
| Defense Systems           | 8,560                  | 8,289            | 7,629            |
| Mission Systems           | 11,399                 | 10,895           | 10,396           |
| Space Systems             | 11,731                 | 11,873           | 10,570           |
| Intersegment eliminations | (2,687)                | (2,553)          | (2,524)          |
| <b>Total sales</b>        | <b>\$ 41,033</b>       | <b>\$ 39,290</b> | <b>\$ 36,602</b> |

The following table presents intersegment sales and operating income:

| \$ in millions                                 | Year Ended December 31 |                  |                 |                  |                 |                  |
|------------------------------------------------|------------------------|------------------|-----------------|------------------|-----------------|------------------|
|                                                | 2024                   |                  | 2023            |                  | 2022            |                  |
|                                                | Sales                  | Operating Income | Sales           | Operating Income | Sales           | Operating Income |
| <b>Intersegment sales and operating income</b> |                        |                  |                 |                  |                 |                  |
| Aeronautics Systems                            | \$ 243                 | \$ 25            | \$ 240          | \$ 22            | \$ 239          | \$ 27            |
| Defense Systems                                | 855                    | 106              | 776             | 94               | 794             | 94               |
| Mission Systems                                | 1,177                  | 181              | 1,054           | 167              | 1,015           | 167              |
| Space Systems                                  | 412                    | 44               | 483             | 52               | 476             | 52               |
| <b>Total</b>                                   | <b>\$ 2,687</b>        | <b>\$ 356</b>    | <b>\$ 2,553</b> | <b>\$ 335</b>    | <b>\$ 2,524</b> | <b>\$ 340</b>    |

The following table presents capital expenditures and depreciation and amortization for each of our reportable segments and for Corporate:

| \$ in millions           | Year Ended December 31 |                 |                 |                               |                 |                 |
|--------------------------|------------------------|-----------------|-----------------|-------------------------------|-----------------|-----------------|
|                          | 2024                   | 2023            | 2022            | 2024                          | 2023            | 2022            |
|                          | Capital Expenditures   |                 |                 | Depreciation and Amortization |                 |                 |
| Aeronautics Systems      | \$ 596                 | \$ 504          | \$ 490          | \$ 380                        | \$ 384          | \$ 322          |
| Defense Systems          | 139                    | 164             | 166             | 180                           | 184             | 174             |
| Mission Systems          | 314                    | 288             | 248             | 255                           | 246             | 242             |
| Space Systems            | 652                    | 745             | 473             | 362                           | 370             | 323             |
| Corporate <sup>(1)</sup> | 66                     | 74              | 58              | 193                           | 154             | 281             |
| <b>Total</b>             | <b>\$ 1,767</b>        | <b>\$ 1,775</b> | <b>\$ 1,435</b> | <b>\$ 1,370</b>               | <b>\$ 1,338</b> | <b>\$ 1,342</b> |

<sup>(1)</sup> Corporate amounts include the amortization of purchased intangible assets and the additional depreciation expense related to the step-up in fair value of PP&E acquired through business combinations as they are not considered part of management's evaluation of segment operating performance.

**Assets**

Our CODM does not use assets by segment to evaluate segment performance or allocate resources. Therefore, we do not disclose assets by segment.

[XML 59 R41.htm IDEA: XBRL DOCUMENT](#)

**Amounts in Paragraphs - Summary of Significant Accounting Policies (Details 1) - USD (\$)**  
**\$ in Millions**  
**Summary of Significant Accounting Policies (Amounts in paragraphs)**  
[Research and development expenses](#)  
[Research and Development as a Percent of Sales](#)  
[Inventory for Long-term Contracts or Programs, General and Administrative Costs Included in Inventory](#)  
[Cash surrender value of life insurance](#)  
[Stock plans, vesting period](#)  
[Revenue from Sale of Equipment to a Customer](#)  
[Proceeds from sale of equipment to a customer](#)  
[Capital Expenditures Incurred but Not yet Paid](#)

|  |          |          |          |  |
|--|----------|----------|----------|--|
|  | \$ 1,100 | \$ 1,200 | \$ 1,200 |  |
|  | 2.70%    | 3.00%    | 3.30%    |  |
|  | \$ 100   | \$ 65    |          |  |
|  | \$ 416   | 399      |          |  |
|  | 3 years  |          |          |  |
|  |          |          | \$ 444   |  |
|  | \$ 0     | 0        | \$ 155   |  |
|  | \$ 242   | \$ 75    | \$ 113   |  |

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|                                                                                                                                 |                        |                      |                      |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------|----------------------|
| <b>Summary of Significant Accounting Policies Property, Plant and Equipment (Details 2) - USD (\$)</b><br><b>\$ in Millions</b> | <b>12 Months Ended</b> |                      |                      |
|                                                                                                                                 | <b>Dec. 31, 2023</b>   | <b>Dec. 31, 2022</b> | <b>Dec. 31, 2024</b> |
| <b>Property, Plant and Equipment</b>                                                                                            |                        |                      |                      |
| <a href="#">Property, plant and equipment, at cost</a>                                                                          | \$ 17,617              |                      | \$ 19,269            |
| <a href="#">Accumulated depreciation</a>                                                                                        | (7,964)                |                      | (8,733)              |
| <a href="#">Property, plant, and equipment, net</a>                                                                             | 9,653                  |                      | 10,536               |
| <a href="#">Gain (Loss) on Disposition of Assets</a>                                                                            |                        | \$ 96                |                      |
| <a href="#">Land and land improvements</a>                                                                                      |                        |                      |                      |
| <b>Property, Plant and Equipment</b>                                                                                            |                        |                      |                      |
| <a href="#">Property, plant and equipment, at cost</a>                                                                          | 742                    |                      | 782                  |
| <a href="#">Buildings and improvements</a>                                                                                      |                        |                      |                      |
| <b>Property, Plant and Equipment</b>                                                                                            |                        |                      |                      |
| <a href="#">Property, plant and equipment, at cost</a>                                                                          | 3,605                  |                      | 4,031                |
| <a href="#">Machinery and other equipment</a>                                                                                   |                        |                      |                      |
| <b>Property, Plant and Equipment</b>                                                                                            |                        |                      |                      |
| <a href="#">Property, plant and equipment, at cost</a>                                                                          | 9,641                  |                      | 10,389               |
| <a href="#">Capitalized software costs</a>                                                                                      |                        |                      |                      |

|                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------|------------------------------------|
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, plant and equipment, at cost</a>                                                                                     | 553                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                    | 779                  |                                    |
| <a href="#">Noncash or Part Noncash Acquisition, Fixed Assets Acquired</a>                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 46                                 |                      |                                    |
| <a href="#">Leasehold improvements</a>                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, plant and equipment, at cost</a>                                                                                     | 3,076                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                    | \$ 3,288             |                                    |
| <a href="#">Noncash or Part Noncash Acquisition, Fixed Assets Acquired</a>                                                                 | \$ 55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                    |                      |                                    |
| <a href="#">Land</a>                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Noncash or Part Noncash Acquisition, Fixed Assets Acquired</a>                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | \$ 155                             |                      |                                    |
| <a href="#">Minimum   Capitalized software costs</a>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, plant and equipment, estimated useful life</a>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3 years                            |                      |                                    |
| <a href="#">Maximum [Member]   Land and land improvements</a>                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, plant and equipment, estimated useful life</a>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 40 years                           |                      |                                    |
| <a href="#">Maximum [Member]   Buildings and improvements</a>                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, plant and equipment, estimated useful life</a>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 45 years                           |                      |                                    |
| <a href="#">Maximum [Member]   Machinery and other equipment</a>                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, plant and equipment, estimated useful life</a>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 20 years                           |                      |                                    |
| <a href="#">Maximum [Member]   Capitalized software costs</a>                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, Plant and Equipment</a>                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Property, plant and equipment, estimated useful life</a>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5 years                            |                      |                                    |
| <a href="#">XML 61 R43.htm IDEA: XBRL DOCUMENT</a>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Summary of Significant Accounting Policies</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>12 Months Ended</b>             |                      |                                    |
| <a href="#">Non-cash Investing and Financing Activities (Details 3)</a>                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Dec. 31, 2024</b>               |                      |                                    |
| <a href="#">Organization, Consolidation and Presentation of Financial Statements [Abstract]</a>                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Noncash Investing and Financing Activities Related Text</a>                                                                    | During the year ended December 31, 2022, the company acquired \$46 million of internal use software through long-term financing directly with the supplier. The software was recorded in PP&E as a non-cash investing activity and the related liability was recorded in long-term debt as a non-cash financing activity. During the year ended December 31, 2023, the company received lease incentives for landlord funded leasehold improvements of \$55 million related to Space Systems real estate leases, which were recorded in PP&E and included in non-cash investing activities. On December 28, 2022 the company acquired certain leased land in exchange for company-owned land, which had been used previously for production-related activities at Space Systems. The exchange was accounted for as a nonmonetary transaction, and the acquired land, valued at approximately \$155 million, was recorded in PP&E as a non-cash investing activity. The transaction resulted in a \$96 million gain, which was reflected in operating costs and expenses in the consolidated statements of earnings and comprehensive income. Non-cash investing activities also include capital expenditures incurred but not yet paid of \$242 million, \$75 million and \$113 million as of December 31, 2024, 2023 and 2022, respectively. |                                    |                      |                                    |
| <a href="#">XML 62 R44.htm IDEA: XBRL DOCUMENT</a>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Summary of Significant Accounting Policies</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Dec. 31, 2024 Dec. 31, 2023</b> |                      |                                    |
| <a href="#">Accumulated Other Comprehensive Income (Loss) (Details 4) - USD (\$)</a>                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">\$ in Millions</a>                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Accumulated Other Comprehensive Loss</a>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Accumulated Other Comprehensive Income (Loss), Foreign Currency Translation Adjustment, Net of Tax</a>                         | \$ (140)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    | \$ (138)             |                                    |
| <a href="#">Accumulated Other Comprehensive Income (Loss), Other Components, Net of Tax</a>                                                | (12)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                    | 10                   |                                    |
| <a href="#">Total accumulated other comprehensive loss</a>                                                                                 | \$ (152)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                    | \$ (128)             |                                    |
| <a href="#">XML 63 R45.htm IDEA: XBRL DOCUMENT</a>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Summary of Significant Accounting Policies</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>3 Months Ended</b>              |                      | <b>12 Months Ended</b>             |
| <a href="#">Contract Estimates (Details 5) - USD (\$)</a>                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Sep. 30, 2024</b>               | <b>Dec. 31, 2023</b> | <b>Dec. 31, 2024</b>               |
| <a href="#">\$ / shares in Units, \$ in Millions</a>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      | <b>Dec. 31, 2022</b>               |
| <a href="#">Change in Accounting Estimate [Line Items]</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Revenue</a>                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 396               | \$ 298 \$ 447                      |
| <a href="#">Operating income</a>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | 4,370                | 2,537 3,601                        |
| <a href="#">Net earnings</a>                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 4,174             | \$ 2,056 \$ 4,896                  |
| <a href="#">Diluted earnings per share</a>                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 28.34             | \$ 13.53 \$ 31.47                  |
| <a href="#">B-21 Charge</a>                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 0                 | \$ 1,559 \$ 0                      |
| <a href="#">Contracts Accounted for under Percentage of Completion [Member]</a>                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Change in Accounting Estimate [Line Items]</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Operating income</a>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | 350                  | 84 360                             |
| <a href="#">Net earnings</a>                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 277               | \$ 66 \$ 284                       |
| <a href="#">Diluted earnings per share</a>                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 1.88              | \$ 0.43 \$ 1.83                    |
| <a href="#">Contracts Accounted for under Percentage of Completion [Member]   Aeronautics Systems   B-21 Program EMD Phase</a>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Change in Accounting Estimate [Line Items]</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Operating income</a>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      | \$ 133                             |
| <a href="#">Contracts Accounted for under Percentage of Completion [Member]   Aeronautics Systems   B-21 Program LRIP Options [Member]</a> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Change in Accounting Estimate [Line Items]</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Operating income</a>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      | \$ (143)                           |
| <a href="#">B-21 Charge</a>                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 1,560             |                                    |
| <a href="#">Loss Contingency, Accrual, Current</a>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    | \$ 1,300             |                                    |
| <a href="#">Contracts Accounted for under Percentage of Completion [Member]   Space Systems   HALO Program [Member]</a>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Change in Accounting Estimate [Line Items]</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Operating income</a>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | \$ 39                              |                      | \$ (100)                           |
| <a href="#">XML 64 R46.htm IDEA: XBRL DOCUMENT</a>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Summary of Significant Accounting Policies</a>                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>12 Months Ended</b>             |                      |                                    |
| <a href="#">Backlog and Contract Assets and Liabilities (Details 6) - USD (\$)</a>                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Dec. 31, 2024</b>               |                      |                                    |
| <a href="#">\$ in Millions</a>                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Backlog, Awards, and Related Adjustments [Line Items]</a>                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |
| <a href="#">Revenue, Remaining Performance Obligation, Amount</a>                                                                          | \$ 91,500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |                      | <b>Dec. 31, 2023 Dec. 31, 2022</b> |
| <a href="#">Revenue, Remaining</a>                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                    |                      |                                    |

Revenue, Remaining Performance  
Obligation, Expected Timing of  
Satisfaction, Explanation

## Change in Contract with Customer, Asset and Liability [Abstract]

### Contract with Customer, Asset, Explanation of Change

[Space Systems | Restricted Space](#)  
[\[Member\]](#)

### Backlog Reduction Due to Contract Termination

Space Systems | NGI Program  
[Member]

### Backlog Reduction Due to Contract Termination

Revenue, Remaining Performance  
Obligation, Expected Timing of  
Satisfaction, Start Date [Axis]:  
2024-12-31

Revenue, Remaining Performance  
Obligation, Percentage

Revenue, Remaining Performance  
Obligation, Expected Timing of  
Satisfaction, Period

Revenue, Remaining Performance  
Obligation, Expected Timing of  
Satisfaction, Start Date [Axis]:  
2025-01-01

Revenue, Remaining Performance  
Obligation, Percentage

Revenue, Remaining Performance  
Obligation, Expected Timing of  
Satisfaction, Period

XML 65 R47.htm IDEA: XBRL DOCUMENT

Gain (Loss) on Securities [Line Items]

Proceeds from Sale, Maturity and Collection of Investments  
Australia, Dollars

**Gain (Loss) on Securities [Line Items]**

Proceeds from Sale, Maturity and Collection of Investments \$ 235  
United States of America, Dollars

### Gain (Loss) on Securities [Line Items]

|                             |       |
|-----------------------------|-------|
| Gain on Sale of Investments | \$ 97 |
|-----------------------------|-------|

XML 67 R49.htm IDEA: XBRL DOCUMENT

**Stock Repurchase [Line**

|                                                                                 |  |               |           |       |           |
|---------------------------------------------------------------------------------|--|---------------|-----------|-------|-----------|
| <a href="#">Items]</a>                                                          |  |               |           |       |           |
| <a href="#">Shares Repurchased</a>                                              |  | 5,400         | 3,300     | 3,300 |           |
| <a href="#">Share Repurchases - Notes to Table [Abstract]</a>                   |  |               |           |       |           |
| <a href="#">Share Repurchase Program. Remaining Authorized, Amount</a>          |  | \$ 4,100      | \$ 4,100  |       | \$ 4,100  |
| <a href="#">January 2021 Share Repurchase Program [Member]</a>                  |  |               |           |       |           |
| <a href="#">Stock Repurchase [Line Items]</a>                                   |  |               |           |       |           |
| <a href="#">Amount Authorized</a>                                               |  |               |           |       | \$ 3,000  |
| <a href="#">Shares Retired</a>                                                  |  |               |           |       |           |
| <a href="#">Average Price Per Share</a>                                         |  |               |           |       | 7,000     |
| <a href="#">2021 Repurchase Program - Completion Date</a>                       |  | April 2023    |           |       | \$ 431.05 |
| <a href="#">Shares Repurchased</a>                                              |  |               | 0         | 1,400 | 3,300     |
| <a href="#">January 2022 Share Repurchase Program</a>                           |  |               |           |       |           |
| <a href="#">Stock Repurchase [Line Items]</a>                                   |  |               |           |       |           |
| <a href="#">Amount Authorized</a>                                               |  |               |           |       | \$ 2,000  |
| <a href="#">Shares Retired</a>                                                  |  |               |           |       | 4,400     |
| <a href="#">Average Price Per Share</a>                                         |  |               |           |       | \$ 455.01 |
| <a href="#">2022 Repurchase Program - Completion Date</a>                       |  | February 2024 |           |       |           |
| <a href="#">Shares Repurchased</a>                                              |  |               | 2,500     | 1,900 | 0         |
| <a href="#">December 2023 Share Repurchase Program</a>                          |  |               |           |       |           |
| <a href="#">Stock Repurchase [Line Items]</a>                                   |  |               |           |       |           |
| <a href="#">Amount Authorized</a>                                               |  |               |           |       | \$ 2,500  |
| <a href="#">Shares Retired</a>                                                  |  | 2,900         |           |       |           |
| <a href="#">Average Price Per Share</a>                                         |  | \$ 472.26     |           |       |           |
| <a href="#">Shares Repurchased</a>                                              |  |               | 2,900     | 0     | 0         |
| <a href="#">Shares repurchased amount</a>                                       |  |               |           |       | 1,400     |
| <a href="#">Share Repurchases - Notes to Table [Abstract]</a>                   |  |               |           |       |           |
| <a href="#">Share Repurchase Program. Remaining Authorized, Amount</a>          |  | \$ 1,100      | \$ 1,100  |       | \$ 1,100  |
| <a href="#">December 2024 Share Repurchase Program</a>                          |  |               |           |       |           |
| <a href="#">Stock Repurchase [Line Items]</a>                                   |  |               |           |       |           |
| <a href="#">Amount Authorized</a>                                               |  |               |           |       | \$ 3,000  |
| <a href="#">Shares Retired</a>                                                  |  | 0             |           |       |           |
| <a href="#">Average Price Per Share</a>                                         |  | \$ 0          |           |       |           |
| <a href="#">Shares Repurchased</a>                                              |  |               | 0         | 0     | 0         |
| <a href="#">Q1'23 ASR [Member]</a>                                              |  |               |           |       |           |
| <a href="#">Accelerated Share Repurchases [Line Items]</a>                      |  |               |           |       |           |
| <a href="#">Accelerated Share Repurchases. Cash or Stock Settlement</a>         |  | 500 million   |           |       |           |
| <a href="#">Accelerated Share Repurchases. Settlement (Payment) or Receipt</a>  |  | \$ 500        |           |       |           |
| <a href="#">Accelerated Share Repurchase Initial Receipt (Shares)</a>           |  | 900           |           |       |           |
| <a href="#">Common stock repurchased</a>                                        |  | \$ 400        |           |       |           |
| <a href="#">Accelerated Share Repurchases. Adjustment to Recorded Amount</a>    |  | \$ 100        |           |       |           |
| <a href="#">Accelerated Share Repurchase Final Receipt Shares</a>               |  | 200           |           |       |           |
| <a href="#">Accelerated Share Repurchases. Final Price Paid Per Share</a>       |  |               | \$ 458.28 |       |           |
| <a href="#">Q1'24 ASR [Member]</a>                                              |  |               |           |       |           |
| <a href="#">Accelerated Share Repurchases [Line Items]</a>                      |  |               |           |       |           |
| <a href="#">Accelerated Share Repurchases. Cash or Stock Settlement</a>         |  | 1.0 billion   |           |       |           |
| <a href="#">Accelerated Share Repurchases. Settlement (Payment) or Receipt</a>  |  | \$ 1,000      |           |       |           |
| <a href="#">Accelerated Share Repurchase Initial Receipt (Shares)</a>           |  | 1,800         |           |       |           |
| <a href="#">Common stock repurchased</a>                                        |  | \$ 800        |           |       |           |
| <a href="#">Accelerated Share Repurchases. Adjustment to Recorded Amount</a>    |  | \$ 200        |           |       |           |
| <a href="#">Accelerated Share Repurchase Final Receipt Shares</a>               |  |               | 400       |       |           |
| <a href="#">Accelerated Share Repurchases. Final Price Paid Per Share</a>       |  |               | \$ 455.73 |       |           |
| <a href="#">XML 68 R50.htm IDEA: XBRL DOCUMENT</a>                              |  |               |           |       |           |
| <a href="#">Accounts Receivable, Net (Details) - USD (\$)</a>                   |  |               |           |       |           |
| <a href="#">\$ in Millions</a>                                                  |  |               |           |       |           |
| <a href="#">Accounts Receivable, after Allowance for Credit Loss [Abstract]</a> |  |               |           |       |           |
| <a href="#">Accounts receivable, gross</a>                                      |  | \$ 1,277      | \$ 1,460  |       |           |
| <a href="#">Allowance for expected credit losses</a>                            |  | (5)           | (6)       |       |           |
| <a href="#">Accounts receivable, net</a>                                        |  | 1,272         | 1,454     |       |           |
| <a href="#">US Government [Member]</a>                                          |  |               |           |       |           |
| <a href="#">Accounts Receivable, after Allowance for Credit Loss [Abstract]</a> |  |               |           |       |           |
| <a href="#">Accounts receivable, gross</a>                                      |  | 951           | 1,184     |       |           |
| <a href="#">International and Other Customers [Member]</a>                      |  |               |           |       |           |
| <a href="#">Accounts Receivable, after Allowance for Credit Loss [Abstract]</a> |  |               |           |       |           |
| <a href="#">Accounts receivable, gross</a>                                      |  | \$ 326        | \$ 276    |       |           |
| <a href="#">XML 69 R51.htm IDEA: XBRL DOCUMENT</a>                              |  |               |           |       |           |
| <a href="#">Unbilled Receivables, Net (Details) - USD (\$)</a>                  |  |               |           |       |           |
| <a href="#">\$ in Millions</a>                                                  |  |               |           |       |           |

|                                                                                              |          |          |
|----------------------------------------------------------------------------------------------|----------|----------|
| <a href="#">Accounts, Notes, Loans and Financing Receivable [Line Items]</a>                 |          |          |
| <a href="#">Unbilled receivable, net of progress and performance-based payments received</a> | \$ 5,922 | \$ 5,710 |
| <a href="#">Allowance for expected credit losses</a>                                         | (14)     | (17)     |
| <a href="#">Unbilled receivables, net</a>                                                    | 5,908    | 5,693    |
| <a href="#">US Government [Member]</a>                                                       |          |          |

|                                                                                              |        |        |
|----------------------------------------------------------------------------------------------|--------|--------|
| <a href="#">Accounts, Notes, Loans and Financing Receivable [Line Items]</a>                 |        |        |
| <a href="#">Unbilled receivables</a>                                                         | 22,871 | 23,655 |
| <a href="#">Government Contract Receivable, Progress Payment Offset</a>                      | 17,300 | 18,321 |
| <a href="#">Unbilled receivable, net of progress and performance-based payments received</a> | 5,571  | 5,334  |
| <a href="#">International and Other Customers [Member]</a>                                   |        |        |

|                                                                                              |        |         |
|----------------------------------------------------------------------------------------------|--------|---------|
| <a href="#">Accounts, Notes, Loans and Financing Receivable [Line Items]</a>                 |        |         |
| <a href="#">Unbilled receivables</a>                                                         | 1,108  | 1,720   |
| <a href="#">Progress and performance-based payments received</a>                             | (757)  | (1,344) |
| <a href="#">Unbilled receivable, net of progress and performance-based payments received</a> | \$ 351 | \$ 376  |

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| Inventoried Costs,<br>Net (Details) - USD<br>(\$) | 12 Months Ended |               |
|---------------------------------------------------|-----------------|---------------|
|                                                   | Dec. 31, 2024   | Dec. 31, 2023 |
| \$ in Millions                                    |                 |               |

|                                                                       |        |        |
|-----------------------------------------------------------------------|--------|--------|
| <a href="#">Inventory [Line Items]</a>                                |        |        |
| <a href="#">Inventory, Raw Materials, Net of Reserves</a>             | \$ 293 | \$ 338 |
| <a href="#">Inventory, Work in Process, Net of Reserves</a>           | 1,118  | 719    |
| <a href="#">Inventory, Finished Goods, Net of Reserves</a>            | 44     | 52     |
| <a href="#">Inventoried costs, net</a>                                | 1,455  | 1,109  |
| <a href="#">Increase (Decrease) in Inventoried Costs, Net</a>         | \$ 346 |        |
| <a href="#">Percent Increase (Decrease) in Inventoried Costs, Net</a> | 31.00% |        |

Aeronautics Systems

|                                        |    |  |
|----------------------------------------|----|--|
| <a href="#">Inventory [Line Items]</a> |    |  |
| <a href="#">Inventory Write-down</a>   | 45 |  |
| <a href="#">Space Systems</a>          |    |  |

|                                        |       |  |
|----------------------------------------|-------|--|
| <a href="#">Inventory [Line Items]</a> |       |  |
| <a href="#">Inventory Write-down</a>   | \$ 43 |  |

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| Income Taxes Federal<br>and Foreign Income<br>Tax Expense (Details<br>1) - USD (\$) | 12 Months Ended |               |               |
|-------------------------------------------------------------------------------------|-----------------|---------------|---------------|
|                                                                                     | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
| \$ in Millions                                                                      |                 |               |               |

|                                                                       |        |        |          |
|-----------------------------------------------------------------------|--------|--------|----------|
| <a href="#">Income Taxes on Continuing Operations (Table Amounts)</a> |        |        |          |
| <a href="#">Current federal income tax expense (benefit)</a>          | \$ 628 | \$ 949 | \$ 1,289 |
| <a href="#">Deferred federal income tax expense (benefit)</a>         | 204    | (670)  | (353)    |
| <a href="#">Total federal income tax expense</a>                      | 832    | 279    | 936      |
| <a href="#">Current foreign income tax expense (benefit)</a>          | 13     | 15     | 3        |
| <a href="#">Deferred foreign income tax expense (benefit)</a>         | (3)    | (4)    | 1        |
| <a href="#">Total foreign income tax expense</a>                      | 10     | 11     | 4        |
| <a href="#">Total federal and foreign income tax expense</a>          | \$ 842 | \$ 290 | \$ 940   |

XML 72 R54.htm
IDEA: XBRL DOCUMENT

| Income Taxes<br>Effective Income Tax<br>Rate Reconciliation<br>(Details 2) - USD (\$) | 12 Months Ended |               |               |
|---------------------------------------------------------------------------------------|-----------------|---------------|---------------|
|                                                                                       | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
| \$ in Millions                                                                        |                 |               |               |

|                                                                                                         |          |          |          |
|---------------------------------------------------------------------------------------------------------|----------|----------|----------|
| <a href="#">Income Tax Reconciliation (Table Amounts) [Abstract]</a>                                    |          |          |          |
| <a href="#">Income tax expense at statutory rate</a>                                                    | \$ 1,053 | \$ 493   | \$ 1,226 |
| <a href="#">Effective Income Tax Rate Reconciliation, at Federal Statutory Income Tax Rate, Percent</a> | 21.00%   | 21.00%   | 21.00%   |
| <a href="#">Research credit</a>                                                                         | \$ (361) | \$ (210) | \$ (177) |
| <a href="#">Research credit, Percent</a>                                                                | (7.20%)  | (8.90%)  | (3.00%)  |
| <a href="#">Effective Income Tax Rate Reconciliation, FDII, Percent</a>                                 | 0.30%    | (2.70%)  | (1.10%)  |
| <a href="#">Effective Income Tax Rate Reconciliation, FDII, Amount</a>                                  | \$ 13    | \$ (63)  | \$ (66)  |
| <a href="#">Income Tax Reconciliation Deductions Taxing Authorities Settlements</a>                     | \$ 0     | \$ (1)   | \$ (86)  |
| <a href="#">Income Tax Reconciliation Deductions Taxing Authorities Settlements, Percent</a>            | 0.00%    | 0.00%    | (1.50%)  |
| <a href="#">Effective Income Tax Rate Reconciliation, Nondeductible Expense, Amount</a>                 | \$ 145   | \$ 69    | \$ 22    |
| <a href="#">Effective Income Tax Rate Reconciliation, Nondeductible Expense, Percent</a>                | 2.90%    | 2.90%    | 0.40%    |
| <a href="#">Other, net</a>                                                                              | \$ (8)   | \$ 2     | \$ 21    |
| <a href="#">Other net, Percent</a>                                                                      | (0.20%)  | 0.10%    | 0.30%    |
| <a href="#">Total federal and foreign income tax expense</a>                                            | \$ 842   | \$ 290   | \$ 940   |
| <a href="#">Effective income tax rate</a>                                                               | 16.80%   | 12.40%   | 16.10%   |

XML 73 R55.htm
IDEA: XBRL DOCUMENT

| Income Taxes<br>Unrecognized Tax<br>Benefits (Details 3) -<br>USD (\$) | 3 Months Ended |               | 12 Months Ended |               |
|------------------------------------------------------------------------|----------------|---------------|-----------------|---------------|
|                                                                        | Jun. 30, 2023  | Dec. 31, 2024 | Dec. 31, 2023   | Dec. 31, 2022 |
| \$ in Millions                                                         |                |               |                 |               |

|                                                                                                        |       |          |          |          |
|--------------------------------------------------------------------------------------------------------|-------|----------|----------|----------|
| <a href="#">Significant Change in Unrecognized Tax Benefits is Reasonably Possible [Line Items]</a>    |       |          |          |          |
| <a href="#">Increase in Unrecognized Tax Benefits is Reasonably Possible</a>                           |       | \$ 100   |          |          |
| <a href="#">Current unrecognized tax benefits</a>                                                      |       | 345      | \$ 964   |          |
| <a href="#">Unrecognized Tax Benefits, Income Tax Penalties and Interest Accrued</a>                   |       | 373      | 305      | \$ 216   |
| <a href="#">Unrecognized Tax Benefits that Would Impact Effective Tax Rate</a>                         |       | 914      |          |          |
| <a href="#">Unrecognized Tax Benefits, Decrease Resulting from Settlements with Taxing Authorities</a> |       | 766      | 189      | 110      |
| <a href="#">Unrecognized Tax Benefits, Interest on Income Taxes Expense</a>                            |       | 164      | 62       | 29       |
| <a href="#">Unrecognized Tax Benefits Rollforward (Table Amounts) [Abstract]</a>                       |       |          |          |          |
| <a href="#">Unrecognized tax benefits at beginning of the year</a>                                     |       | 1,994    | 1,663    | 1,630    |
| <a href="#">Additions based on tax positions related to the current year</a>                           |       | 236      | 276      | 262      |
| <a href="#">Additions for tax positions of prior years</a>                                             |       | 90       | 254      | 6        |
| <a href="#">Reductions for tax positions of prior years</a>                                            |       | (106)    | (9)      | (124)    |
| <a href="#">Settlements with taxing authorities</a>                                                    |       | (766)    | (189)    | (110)    |
| <a href="#">Other, net</a>                                                                             |       | (1)      | (1)      | (1)      |
| <a href="#">Net change in unrecognized tax benefits</a>                                                |       | (547)    | 331      | 33       |
| <a href="#">Unrecognized tax benefits at end of the year</a>                                           |       | 1,447    | \$ 1,994 | \$ 1,663 |
| <a href="#">Internal Revenue Service (IRS) [Member]</a>                                                |       |          |          |          |
| <a href="#">Significant Change in Unrecognized Tax Benefits is Reasonably Possible [Line Items]</a>    |       |          |          |          |
| <a href="#">Unrecognized Tax Benefits, Decrease Resulting from Settlements with Taxing Authorities</a> | \$ 90 | 766      |          |          |
| <a href="#">Unrecognized Tax Benefits Rollforward (Table Amounts) [Abstract]</a>                       |       |          |          |          |
| <a href="#">Settlements with taxing authorities</a>                                                    | (90)  | \$ (766) |          |          |
| <a href="#">California Franchise Tax Board [Member]</a>                                                |       |          |          |          |
| <a href="#">Significant Change in Unrecognized Tax Benefits is Reasonably Possible [Line Items]</a>    |       |          |          |          |
| <a href="#">Unrecognized Tax Benefits, Decrease Resulting from Settlements with Taxing Authorities</a> | 95    |          |          |          |
| <a href="#">Tax Adjustments, Settlements, and Unusual Provisions</a>                                   | 11    |          |          |          |
| <a href="#">Unrecognized Tax Benefits Rollforward (Table Amounts) [Abstract]</a>                       |       |          |          |          |
| <a href="#">Settlements with taxing authorities</a>                                                    |       | \$ (95)  |          |          |



| Income Taxes<br>Deferred Income<br>Taxes (Details 4) -<br>USD (\$)<br>\$ in Millions          |  |  | Dec. 31, 2024 | Dec. 31, 2023 |
|-----------------------------------------------------------------------------------------------|--|--|---------------|---------------|
| <b>Deferred Tax Assets (Table Amounts)</b>                                                    |  |  |               |               |
| Retiree benefits                                                                              |  |  | \$ 0          | \$ 115        |
| Deferred Tax Asset, R&E Expenditure Capitalization                                            |  |  | 4,816         | 3,380         |
| Accrued employee compensation                                                                 |  |  | 386           | 400           |
| Provisions for accrued liabilities                                                            |  |  | 468           | 509           |
| Inventory                                                                                     |  |  | 36            | 279           |
| Stock-based compensation                                                                      |  |  | 37            | 35            |
| Operating lease liabilities                                                                   |  |  | 557           | 575           |
| Tax credits                                                                                   |  |  | 562           | 557           |
| Other                                                                                         |  |  | 241           | 215           |
| Gross deferred tax assets                                                                     |  |  | 7,103         | 6,065         |
| Less: valuation allowance                                                                     |  |  | (526)         | (517)         |
| Net deferred tax assets                                                                       |  |  | 6,577         | 5,548         |
| <b>Deferred Tax Liabilities (Table Amounts)</b>                                               |  |  |               |               |
| Goodwill                                                                                      |  |  | 534           | 534           |
| Purchased intangibles                                                                         |  |  | 69            | 83            |
| Property, plant and equipment, net                                                            |  |  | 827           | 805           |
| Operating lease right-of-use assets                                                           |  |  | 554           | 563           |
| Contract accounting differences                                                               |  |  | 2,714         | 2,437         |
| Other                                                                                         |  |  | 127           | 106           |
| Deferred tax liabilities                                                                      |  |  | 4,978         | 4,528         |
| Total net deferred tax assets                                                                 |  |  | 1,599         | 1,020         |
| Deferred Tax Assets, Tax Deferred Expense, Compensation and Benefits, Postretirement Benefits |  |  | \$ 153        | \$ 0          |

| Amounts in<br>Paragraphs - Income<br>Taxes (Details 5) -<br>USD (\$)<br>\$ in Millions |         | 12 Months Ended |               |               |
|----------------------------------------------------------------------------------------|---------|-----------------|---------------|---------------|
|                                                                                        |         | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
| <b>Income Tax Disclosure [Abstract]</b>                                                |         |                 |               |               |
| Effective income tax rate                                                              | 16.80%  |                 | 12.40%        | 16.10%        |
| Significant matters affecting comparability                                            | (0.40%) |                 | 3.80%         | (1.20%)       |
| Income taxes paid, net                                                                 | \$ 880  |                 | \$ 1,200      | \$ 1,500      |
| Income Taxes Receivable                                                                | 517     |                 | \$ 1,500      |               |
| Tax Credit Carryforward, Amount                                                        | 627     |                 |               |               |
| Operating Loss Carryforwards                                                           | 318     |                 |               |               |
| Tax Credit Carryforward, Valuation Allowance                                           | 343     |                 |               |               |
| Operating Loss Carryforwards, Valuation Allowance                                      | \$ 42   |                 |               |               |

| Goodwill and Other<br>Purchased Intangible<br>Assets Goodwill<br>Rollforward (Details<br>1) - USD (\$)<br>\$ in Millions |           | 12 Months Ended |               |
|--------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|---------------|
|                                                                                                                          |           | Dec. 31, 2024   | Dec. 31, 2023 |
| <b>Goodwill (Table Amounts)</b>                                                                                          |           |                 |               |
| Beginning balance                                                                                                        | \$ 17,517 |                 | \$ 17,516     |
| Other                                                                                                                    | (5)       |                 | 1             |
| Ending balance                                                                                                           | 17,512    |                 | 17,517        |
| <b>Aeronautics Systems</b>                                                                                               |           |                 |               |
| <b>Goodwill (Table Amounts)</b>                                                                                          |           |                 |               |
| Beginning balance                                                                                                        | 3,467     |                 | 3,467         |
| Other                                                                                                                    | 0         |                 | 0             |
| Ending balance                                                                                                           | 3,467     |                 | 3,467         |
| <b>Defense Systems</b>                                                                                                   |           |                 |               |
| <b>Goodwill (Table Amounts)</b>                                                                                          |           |                 |               |
| Beginning balance                                                                                                        | 4,229     |                 | 4,228         |
| Other                                                                                                                    | (5)       |                 | 1             |
| Ending balance                                                                                                           | 4,224     |                 | 4,229         |
| <b>Mission Systems</b>                                                                                                   |           |                 |               |
| <b>Goodwill (Table Amounts)</b>                                                                                          |           |                 |               |
| Beginning balance                                                                                                        | 5,881     |                 | 5,881         |
| Other                                                                                                                    | 0         |                 | 0             |
| Ending balance                                                                                                           | 5,881     |                 | 5,881         |
| <b>Space Systems</b>                                                                                                     |           |                 |               |
| <b>Goodwill (Table Amounts)</b>                                                                                          |           |                 |               |
| Beginning balance                                                                                                        | 3,940     |                 | 3,940         |
| Other                                                                                                                    | 0         |                 | 0             |
| Ending balance                                                                                                           | \$ 3,940  |                 | \$ 3,940      |

| Goodwill and Other<br>Purchased Intangible<br>Assets Other<br>Purchased Intangible<br>Assets (Details 2) -<br>USD (\$)<br>\$ in Millions    |  | Dec. 31, 2024             |  | Dec. 31, 2023 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------|--|---------------|--|
| <b>Acquired Finite-Lived Intangible Assets [Line Items]</b>                                                                                 |  |                           |  |               |  |
| <a href="#">Gross customer-related and other intangible assets</a>                                                                          |  | \$ 3,371                  |  | \$ 3,365      |  |
| <a href="#">Less accumulated amortization</a>                                                                                               |  | (3,117)                   |  | (3,060)       |  |
| <a href="#">Net contract, program and other intangible assets</a>                                                                           |  | \$ 254                    |  | \$ 305        |  |
| <a href="#">XML 78 R60.htm IDEA: XBRL DOCUMENT</a>                                                                                          |  |                           |  |               |  |
| Goodwill and Other<br>Purchased Intangible<br>Assets Future<br>Amortization of<br>Purchased<br>Intangibles (Details<br>3)<br>\$ in Millions |  | Dec. 31, 2024<br>USD (\$) |  |               |  |
| <b>Goodwill and Intangible Assets Disclosure [Abstract]</b>                                                                                 |  |                           |  |               |  |
| <a href="#">2025</a>                                                                                                                        |  | \$ 45                     |  |               |  |
| <a href="#">2026</a>                                                                                                                        |  | 42                        |  |               |  |
| <a href="#">2027</a>                                                                                                                        |  | 31                        |  |               |  |
| <a href="#">2028</a>                                                                                                                        |  | 31                        |  |               |  |
| <a href="#">2029</a>                                                                                                                        |  | \$ 31                     |  |               |  |

Goodwill and Other  
Purchased Intangible  
Assets Amounts in  
Paragraphs - Goodwill  
and Other Purchased  
Intangible Assets  
(Details 4) - USD (\$)  
\$ in Millions

12 Months Ended  
  
Dec. 31, 2024 Dec. 31, 2023 Dec. 31, 2022

|                                                                 |       |       |        |
|-----------------------------------------------------------------|-------|-------|--------|
| <a href="#">Goodwill [Line Items]</a>                           |       |       |        |
| <a href="#">Amortization of Intangible Assets</a>               | \$ 57 | \$ 80 | \$ 197 |
| <a href="#">Aeronautics Systems</a>                             |       |       |        |
| <a href="#">Goodwill [Line Items]</a>                           |       |       |        |
| <a href="#">Goodwill, Impaired, Accumulated Impairment Loss</a> | 417   | 417   |        |
| <a href="#">Space Systems</a>                                   |       |       |        |
| <a href="#">Goodwill [Line Items]</a>                           |       |       |        |
| <a href="#">Goodwill, Impaired, Accumulated Impairment Loss</a> | 121   | 121   |        |
| <a href="#">Defense Systems</a>                                 |       |       |        |
| <a href="#">Goodwill [Line Items]</a>                           |       |       |        |
| <a href="#">Goodwill, Impaired, Accumulated Impairment Loss</a> | \$ 32 | \$ 32 |        |

Fair Value of  
Financial Instruments  
(Details 1) - USD (\$)  
\$ in Millions

Dec. 31, 2024 Dec. 31, 2023

|                                                                                                              |        |        |
|--------------------------------------------------------------------------------------------------------------|--------|--------|
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | \$ 347 | \$ 339 |
| <a href="#">Fair Value, Inputs, Level 1 [Member]</a>                                                         |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | 325    | 321    |
| <a href="#">Derivative Assets (Liabilities), at Fair Value, Net</a>                                          | 0      | 0      |
| <a href="#">Fair Value, Inputs, Level 2 [Member]</a>                                                         |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | 0      | 1      |
| <a href="#">Derivative Assets (Liabilities), at Fair Value, Net</a>                                          | (11)   | 5      |
| <a href="#">Fair Value, Inputs, Level 3 [Member]</a>                                                         |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | 14     | 8      |
| <a href="#">Derivative Assets (Liabilities), at Fair Value, Net</a>                                          | 0      | 0      |
| <a href="#">Fair Value, Recurring [Member]</a>                                                               |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | 339    | 330    |
| <a href="#">Derivative Assets (Liabilities), at Fair Value, Net</a>                                          | (11)   | 5      |
| <a href="#">Fair Value, Recurring [Member]   Fair Value, Inputs, Level 1 [Member]</a>                        |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | 325    | 321    |
| <a href="#">Fair Value, Recurring [Member]   Fair Value, Inputs, Level 2 [Member]</a>                        |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | 0      | 1      |
| <a href="#">Fair Value, Recurring [Member]   Fair Value, Inputs, Level 3 [Member]</a>                        |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | 14     | 8      |
| <a href="#">Fair Value, Nonrecurring [Member]</a>                                                            |        |        |
| <a href="#">Fair Value, Assets and Liabilities Measured on Recurring and Nonrecurring Basis [Line Items]</a> |        |        |
| <a href="#">Marketable Securities</a>                                                                        | \$ 8   | \$ 9   |

Fair Value of  
Financial Instruments  
Amounts in  
Paragraphs - Fair  
Value of Financial  
Instruments (Details  
2) - Foreign Exchange  
Forward [Member] -  
USD (\$)  
\$ in Millions

Dec. 31, 2024 Dec. 31, 2023

|                                                           |        |        |
|-----------------------------------------------------------|--------|--------|
| <a href="#">Debt Instrument [Line Items]</a>              |        |        |
| <a href="#">Derivative, Notional Amount</a>               | \$ 399 | \$ 286 |
| <a href="#">Designated as Hedging Instrument [Member]</a> |        |        |
| <a href="#">Debt Instrument [Line Items]</a>              |        |        |
| <a href="#">Derivative, Notional Amount</a>               | \$ 273 | \$ 162 |

Debt Fixed-rate Notes  
and Other (Details 1)  
- USD (\$)  
\$ in Millions

Jan. 15, 2025 Aug. 01, 2023 Dec. 31, 2024 Jan. 31, 2024 Dec. 31, 2023 Feb. 08, 2023

|                                                                   |          |           |          |
|-------------------------------------------------------------------|----------|-----------|----------|
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>         |          |           |          |
| <a href="#">Debt Instrument, Face Amount</a>                      |          | \$ 2,500  | \$ 2,000 |
| <a href="#">Long-term debt</a>                                    |          | \$ 16,274 |          |
| <a href="#">Other long-term debt</a>                              |          | 264       | \$ 332   |
| <a href="#">Debt issuance costs</a>                               |          | (83)      | (69)     |
| <a href="#">Total long-term debt</a>                              |          | 16,274    | 13,856   |
| <a href="#">Less: current portion</a>                             |          | 1,582     | 70       |
| <a href="#">Long-term Debt and Lease Obligation</a>               |          | \$ 14,692 | 13,786   |
| <a href="#">2023</a>                                              |          |           |          |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>         |          |           |          |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a> |          | 3.25%     |          |
| <a href="#">Extinguishment of Debt, Amount</a>                    |          | \$ 1,050  |          |
| <a href="#">2025</a>                                              |          |           |          |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>         |          |           |          |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a> | 2.93%    | 2.93%     |          |
| <a href="#">Extinguishment of Debt, Amount</a>                    | \$ 1,500 |           |          |
| <a href="#">Long-term debt</a>                                    |          | \$ 1,500  | 1,500    |
| <a href="#">2026</a>                                              |          |           |          |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>         |          |           |          |
| <a href="#">Long-term debt</a>                                    |          | \$ 527    | 527      |
| <a href="#">2027</a>                                              |          |           |          |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>         |          |           |          |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a> |          | 3.20%     |          |
| <a href="#">Long-term debt</a>                                    |          | \$ 750    | 750      |
| <a href="#">2028</a>                                              |          |           |          |

|                                                                                       |                                                                                                                                     |                      |                        |                      |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------|----------------------|
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 3.25%                                                                                                                               |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 2,000                                                                                                                            |                      | 2,000                  |                      |
| <a href="#">2029</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Face Amount</a>                                          |                                                                                                                                     | \$ 500               |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 4.60%                                                                                                                               | 4.60%                |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 500                                                                                                                              |                      | 0                      |                      |
| <a href="#">2030</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 4.40%                                                                                                                               |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 750                                                                                                                              |                      | 750                    |                      |
| <a href="#">2031</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 7.75%                                                                                                                               |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 466                                                                                                                              |                      | 466                    |                      |
| <a href="#">2033</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Face Amount</a>                                          |                                                                                                                                     |                      |                        | \$ 1,000             |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 4.70%                                                                                                                               |                      |                        | 4.70%                |
| <a href="#">Long-term debt</a>                                                        | \$ 1,000                                                                                                                            |                      | 1,000                  |                      |
| <a href="#">2034</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Face Amount</a>                                          |                                                                                                                                     | \$ 850               |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 4.90%                                                                                                                               | 4.90%                |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 850                                                                                                                              |                      | 0                      |                      |
| <a href="#">2040</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 800                                                                                                                              |                      | 800                    |                      |
| <a href="#">2043</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 4.75%                                                                                                                               |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 950                                                                                                                              |                      | 950                    |                      |
| <a href="#">2045</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 3.85%                                                                                                                               |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 600                                                                                                                              |                      | 600                    |                      |
| <a href="#">2047</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 4.03%                                                                                                                               |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 2,250                                                                                                                            |                      | 2,250                  |                      |
| <a href="#">2050</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 5.25%                                                                                                                               |                      |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 1,000                                                                                                                            |                      | 1,000                  |                      |
| <a href="#">2053</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Face Amount</a>                                          |                                                                                                                                     |                      |                        | \$ 1,000             |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 4.95%                                                                                                                               |                      |                        | 4.95%                |
| <a href="#">Long-term debt</a>                                                        | \$ 1,000                                                                                                                            |                      | 1,000                  |                      |
| <a href="#">2054</a>                                                                  |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Face Amount</a>                                          |                                                                                                                                     | \$ 1,150             |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 5.20%                                                                                                                               | 5.20%                |                        |                      |
| <a href="#">Long-term debt</a>                                                        | \$ 1,150                                                                                                                            |                      | \$ 0                   |                      |
| <a href="#">Minimum   2026</a>                                                        |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 7.75%                                                                                                                               |                      |                        |                      |
| <a href="#">Minimum   2040</a>                                                        |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 5.05%                                                                                                                               |                      |                        |                      |
| <a href="#">Maximum   2026</a>                                                        |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 7.88%                                                                                                                               |                      |                        |                      |
| <a href="#">Maximum   2040</a>                                                        |                                                                                                                                     |                      |                        |                      |
| <a href="#">Long-Term Debt (Table Amounts) [Abstract]</a>                             |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument, Interest Rate, Stated Percentage</a>                     | 5.15%                                                                                                                               |                      |                        |                      |
| <a href="#">XML 83 R65.htm IDEA: XBRL DOCUMENT</a>                                    |                                                                                                                                     |                      |                        |                      |
| <b>Debt Maturities of</b>                                                             |                                                                                                                                     |                      |                        |                      |
| <b>Long-term Debt</b>                                                                 |                                                                                                                                     |                      |                        |                      |
| <b>(Details 2) - USD (\$)</b>                                                         | <b>Dec. 31, 2024</b>                                                                                                                | <b>Dec. 31, 2023</b> |                        |                      |
| <b>\$ in Millions</b>                                                                 |                                                                                                                                     |                      |                        |                      |
| <a href="#">Maturities of Long-term Debt [Abstract]</a>                               |                                                                                                                                     |                      |                        |                      |
| <a href="#">2025</a>                                                                  | \$ 1,582                                                                                                                            |                      |                        |                      |
| <a href="#">2026</a>                                                                  | 534                                                                                                                                 |                      |                        |                      |
| <a href="#">2027</a>                                                                  | 755                                                                                                                                 |                      |                        |                      |
| <a href="#">2028</a>                                                                  | 2,044                                                                                                                               |                      |                        |                      |
| <a href="#">2029</a>                                                                  | 592                                                                                                                                 |                      |                        |                      |
| <a href="#">Thereafter</a>                                                            | 10,871                                                                                                                              |                      |                        |                      |
| <a href="#">Total principal payments</a>                                              | 16,378                                                                                                                              |                      |                        |                      |
| <a href="#">Unamortized premium on long-term debt, net of discount</a>                | (21)                                                                                                                                |                      |                        |                      |
| <a href="#">Debt issuance costs</a>                                                   | (83)                                                                                                                                | \$ (69)              |                        |                      |
| <a href="#">Total long-term debt</a>                                                  | \$ 16,274                                                                                                                           |                      |                        |                      |
| <a href="#">XML 84 R66.htm IDEA: XBRL DOCUMENT</a>                                    |                                                                                                                                     |                      |                        |                      |
| <b>Amounts in</b>                                                                     |                                                                                                                                     |                      | <b>12 Months Ended</b> |                      |
| <b>Paragraphs - Debt</b>                                                              |                                                                                                                                     |                      |                        |                      |
| <b>(Details 3) - USD (\$)</b>                                                         |                                                                                                                                     | <b>Dec. 31, 2024</b> |                        | <b>Dec. 31, 2023</b> |
| <b>\$ in Millions</b>                                                                 |                                                                                                                                     |                      |                        | <b>Dec. 31, 2022</b> |
| <a href="#">Debt Instrument [Line Items]</a>                                          |                                                                                                                                     |                      |                        |                      |
| <a href="#">Credit Facility, Covenant Terms, Maximum Debt to Capitalization Ratio</a> | The company also cannot permit the ratio of its debt to capitalization (as set forth in the credit agreement) to exceed 65 percent. |                      |                        |                      |
| <a href="#">Line of Credit Facility, Covenant Compliance</a>                          | the company was in compliance with all covenants under its credit agreement.                                                        |                      |                        |                      |
| <a href="#">Long-term Debt, Fair Value</a>                                            | \$ 15,300                                                                                                                           |                      | \$ 13,400              |                      |
| <a href="#">Interest paid, net of interest received</a>                               | 475                                                                                                                                 |                      | 437                    | \$ 474               |
| <a href="#">Interest Costs Capitalized</a>                                            | 113                                                                                                                                 |                      | 95                     | \$ 53                |
| <a href="#">Five Year Term [Member] [Domain]</a>                                      |                                                                                                                                     |                      |                        |                      |
| <a href="#">Debt Instrument [Line Items]</a>                                          |                                                                                                                                     |                      |                        |                      |
| <a href="#">Line of Credit Facility, Maximum Borrowing Capacity</a>                   | 2,500                                                                                                                               |                      |                        |                      |
| <a href="#">Credit facilities</a>                                                     | 0                                                                                                                                   |                      |                        |                      |

|                                                              |       |  |      |
|--------------------------------------------------------------|-------|--|------|
| <a href="#">Commercial Paper [Member]</a>                    |       |  |      |
| <a href="#">Debt Instrument [Line Items]</a>                 |       |  |      |
| <a href="#">Commercial Paper, Maximum Borrowing Capacity</a> | 2,500 |  |      |
| <a href="#">Short-term Debt</a>                              | \$ 0  |  | \$ 0 |

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| Commitments and Contingencies<br>(Details 1) - USD (\$)<br>\$ in Millions | 3 Months Ended |               |               |
|---------------------------------------------------------------------------|----------------|---------------|---------------|
|                                                                           | Jun. 30, 2024  | Dec. 31, 2024 | Dec. 31, 2023 |
|                                                                           |                |               |               |

Environmental Commitments and Contingencies (Amounts in Paragraphs)

|                                                                               |        |        |  |
|-------------------------------------------------------------------------------|--------|--------|--|
| <a href="#">Amounts accrued for probable environmental remediation costs</a>  | \$ 546 | \$ 584 |  |
| <a href="#">Loss Contingency, Range of Possible Loss, Portion Not Accrued</a> | 377    | 387    |  |
| <a href="#">Recorded Third-Party Environmental Recoveries, Amount</a>         | 507    | \$ 518 |  |

Financial Arrangements (Amounts in Paragraph)

|                                                                      |     |  |  |
|----------------------------------------------------------------------|-----|--|--|
| <a href="#">Unused standby letters of credit and bank guarantees</a> | 484 |  |  |
| <a href="#">Surety Bond Outstanding</a>                              | 272 |  |  |
| <a href="#">Other Current Liabilities [Member]</a>                   |     |  |  |

Environmental Commitments and Contingencies (Amounts in Paragraphs)

|                                                                              |     |  |  |
|------------------------------------------------------------------------------|-----|--|--|
| <a href="#">Amounts accrued for probable environmental remediation costs</a> | 196 |  |  |
| <a href="#">Other Noncurrent Liabilities [Member]</a>                        |     |  |  |

Environmental Commitments and Contingencies (Amounts in Paragraphs)

|                                                                              |     |  |  |
|------------------------------------------------------------------------------|-----|--|--|
| <a href="#">Amounts accrued for probable environmental remediation costs</a> | 350 |  |  |
| <a href="#">Prepaid Expenses and Other Current Assets [Member]</a>           |     |  |  |

Environmental Commitments and Contingencies (Amounts in Paragraphs)

|                                                                       |     |  |  |
|-----------------------------------------------------------------------|-----|--|--|
| <a href="#">Recorded Third-Party Environmental Recoveries, Amount</a> | 186 |  |  |
| <a href="#">Other Noncurrent Assets [Member]</a>                      |     |  |  |

Environmental Commitments and Contingencies (Amounts in Paragraphs)

|                                                                       |        |  |  |
|-----------------------------------------------------------------------|--------|--|--|
| <a href="#">Recorded Third-Party Environmental Recoveries, Amount</a> | \$ 321 |  |  |
| <a href="#">Environmental Remediation Expense, Recovery</a>           | \$ 26  |  |  |

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| Retirement Benefits<br>Net Periodic Benefit Cost (Benefit)<br>(Details 1) - USD (\$)<br>\$ in Millions | 12 Months Ended |               |               |
|--------------------------------------------------------------------------------------------------------|-----------------|---------------|---------------|
|                                                                                                        | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
|                                                                                                        |                 |               |               |

Components of Net Periodic Benefit Cost (Table Amounts) [Abstract]

|                                                                  |          |          |          |
|------------------------------------------------------------------|----------|----------|----------|
| <a href="#">Interest cost</a>                                    | \$ 1,600 |          |          |
| <a href="#">Mark-to-market pension and OPB benefit (expense)</a> | 443      | \$ (422) | \$ 1,232 |
| <a href="#">Net periodic benefit cost (benefit)</a>              | (438)    | (308)    | (1,193)  |
| <a href="#">Pension Benefits</a>                                 |          |          |          |

Components of Net Periodic Benefit Cost (Table Amounts) [Abstract]

|                                                                  |         |         |         |
|------------------------------------------------------------------|---------|---------|---------|
| <a href="#">Service cost</a>                                     | 239     | 236     | 367     |
| <a href="#">Interest cost</a>                                    | 1,526   | 1,568   | 1,136   |
| <a href="#">Expected return on plan assets</a>                   | (2,197) | (2,098) | (2,641) |
| <a href="#">Amortization of prior service credit</a>             | 0       | 0       | 0       |
| <a href="#">Mark-to-market pension and OPB benefit (expense)</a> | 450     | (442)   | 1,262   |
| <a href="#">Other</a>                                            | 15      | 0       | 0       |
| <a href="#">Net periodic benefit cost (benefit)</a>              | (867)   | 148     | (2,400) |
| <a href="#">Medical and Life Benefits</a>                        |         |         |         |

Components of Net Periodic Benefit Cost (Table Amounts) [Abstract]

|                                                                  |         |         |         |
|------------------------------------------------------------------|---------|---------|---------|
| <a href="#">Service cost</a>                                     | 4       | 5       | 9       |
| <a href="#">Interest cost</a>                                    | 62      | 67      | 47      |
| <a href="#">Expected return on plan assets</a>                   | (87)    | (85)    | (110)   |
| <a href="#">Amortization of prior service credit</a>             | 0       | (1)     | (1)     |
| <a href="#">Mark-to-market pension and OPB benefit (expense)</a> | (7)     | 20      | (30)    |
| <a href="#">Other</a>                                            | 0       | 0       | 0       |
| <a href="#">Net periodic benefit cost (benefit)</a>              | \$ (14) | \$ (34) | \$ (25) |

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| Retirement Benefits<br>Unamortized Prior Service Credit<br>Rollforward (Details 2) - USD (\$)<br>\$ in Millions | 12 Months Ended |               |               |
|-----------------------------------------------------------------------------------------------------------------|-----------------|---------------|---------------|
|                                                                                                                 | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
|                                                                                                                 |                 |               |               |

Amortization of:

|                                                                                                                  |      |      |      |
|------------------------------------------------------------------------------------------------------------------|------|------|------|
| <a href="#">Prior service credit</a>                                                                             | \$ 0 | \$ 1 | \$ 1 |
| <a href="#">Tax expense (benefit) related to above items</a>                                                     | 3    | 0    | 0    |
| <a href="#">Change in unamortized benefit plan costs</a>                                                         | (9)  | 1    | 1    |
| <a href="#">Other Comprehensive (Income) Loss, Defined Benefit Plan, Prior Service Cost (Credit), before Tax</a> | (12) |      |      |
| <a href="#">Pension Benefits</a>                                                                                 |      |      |      |

Amortization of:

|                                                                                                                  |   |   |   |
|------------------------------------------------------------------------------------------------------------------|---|---|---|
| <a href="#">Prior service credit</a>                                                                             | 0 | 0 | 0 |
| <a href="#">Tax expense (benefit) related to above items</a>                                                     | 0 | 0 | 0 |
| <a href="#">Change in unamortized benefit plan costs</a>                                                         | 0 | 0 | 0 |
| <a href="#">Other Comprehensive (Income) Loss, Defined Benefit Plan, Prior Service Cost (Credit), before Tax</a> | 0 |   |   |
| <a href="#">Medical and Life Benefits</a>                                                                        |   |   |   |

Amortization of:

|                                                                                                                  |      |      |      |
|------------------------------------------------------------------------------------------------------------------|------|------|------|
| <a href="#">Prior service credit</a>                                                                             | 0    | 1    | 1    |
| <a href="#">Tax expense (benefit) related to above items</a>                                                     | 3    | 0    | 0    |
| <a href="#">Change in unamortized benefit plan costs</a>                                                         | (9)  | \$ 1 | \$ 1 |
| <a href="#">Other Comprehensive (Income) Loss, Defined Benefit Plan, Prior Service Cost (Credit), before Tax</a> | (12) |      |      |

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| Retirement Benefits<br>Funded Status of Plan Assets (Liabilities)<br>(Details 3) - USD (\$)<br>\$ in Millions | 12 Months Ended |               |               |
|---------------------------------------------------------------------------------------------------------------|-----------------|---------------|---------------|
|                                                                                                               | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
|                                                                                                               |                 |               |               |

Change in plan assets

|                                                                |           |           |  |
|----------------------------------------------------------------|-----------|-----------|--|
| <a href="#">Fair value of plan assets at beginning of year</a> | \$ 31,525 |           |  |
| <a href="#">Fair value of plan assets at end of year</a>       | 31,006    | \$ 31,525 |  |

Change in projected benefit obligation

|                               |         |  |  |
|-------------------------------|---------|--|--|
| <a href="#">Interest cost</a> | 1,600   |  |  |
| <a href="#">Benefits paid</a> | (2,100) |  |  |

Amounts Recognized on the Balance Sheet

|                                       |         |         |  |
|---------------------------------------|---------|---------|--|
| <a href="#">Non-current assets</a>    | 2,184   | 1,331   |  |
| <a href="#">Non-current liability</a> | (1,120) | (1,290) |  |
| <a href="#">Pension Benefits</a>      |         |         |  |

Change in plan assets

|                                                                |        |        |  |
|----------------------------------------------------------------|--------|--------|--|
| <a href="#">Fair value of plan assets at beginning of year</a> | 30,251 | 28,920 |  |
| <a href="#">Net gain on plan assets</a>                        | 1,358  | 3,104  |  |

|                                                   |         |         |           |
|---------------------------------------------------|---------|---------|-----------|
| Employer contributions                            | 96      | 105     |           |
| Participant contributions                         | 6       | 6       |           |
| Benefits paid                                     | 1,942   | 1,894   |           |
| Other                                             | 0       | 10      |           |
| Fair value of plan assets at end of year          | 29,769  | 30,251  | \$ 28,920 |
| <b>Change in projected benefit obligation</b>     |         |         |           |
| Projected benefit obligation at beginning of year | 30,443  | 29,067  |           |
| Service cost                                      | 239     | 236     | 367       |
| Interest cost                                     | 1,526   | 1,568   | 1,136     |
| Participant contributions                         | 6       | 6       |           |
| Actuarial (gain) loss                             | (1,295) | 1,447   |           |
| Benefits paid                                     | 1,942   | 1,894   |           |
| Other                                             | 15      | 13      |           |
| Projected benefit obligation at end of year       | 28,992  | 30,443  | 29,067    |
| Funded status                                     | 777     | (192)   |           |
| <b>Amounts Recognized on the Balance Sheet</b>    |         |         |           |
| Non-current assets                                | 1,851   | 1,042   |           |
| Current liability                                 | (177)   | (178)   |           |
| Non-current liability                             | (897)   | (1,056) |           |

Medical and Life Benefits

Change in plan assets

|                                                   |       |       |          |
|---------------------------------------------------|-------|-------|----------|
| Fair value of plan assets at beginning of year    | 1,274 | 1,226 |          |
| Net gain on plan assets                           | 61    | 146   |          |
| Employer contributions                            | 33    | 34    |          |
| Participant contributions                         | 26    | 27    |          |
| Benefits paid                                     | 157   | 159   |          |
| Other                                             | 0     | 0     |          |
| Fair value of plan assets at end of year          | 1,237 | 1,274 | 1,226    |
| <b>Change in projected benefit obligation</b>     |       |       |          |
| Projected benefit obligation at beginning of year | 1,246 | 1,264 |          |
| Service cost                                      | 4     | 5     | 9        |
| Interest cost                                     | 62    | 67    | 47       |
| Participant contributions                         | 26    | 27    |          |
| Actuarial (gain) loss                             | (19)  | 42    |          |
| Benefits paid                                     | 157   | 159   |          |
| Other                                             | (12)  | 0     |          |
| Projected benefit obligation at end of year       | 1,150 | 1,246 | \$ 1,264 |
| Funded status                                     | 87    | 28    |          |

Amounts Recognized on the Balance Sheet

|                       |          |          |  |
|-----------------------|----------|----------|--|
| Non-current assets    | 333      | 289      |  |
| Current liability     | (23)     | (27)     |  |
| Non-current liability | \$ (223) | \$ (234) |  |

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Retirement Benefits  
Accumulated Benefit  
Obligations in Excess  
of Fair Value (Details  
4) - USD (\$)  
\$ in Millions

Dec. 31, 2024 Dec. 31, 2023

Pension plans with accumulated benefit obligations in excess of fair value of plan assets (Table Amounts) [Abstract]

|                                |          |          |
|--------------------------------|----------|----------|
| Projected benefit obligation   | \$ 1,076 | \$ 1,152 |
| Accumulated benefit obligation | 1,066    | 1,143    |
| Fair value of plan assets      | \$ 3     | \$ 3     |

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Retirement Benefits  
Plan Assumptions  
(Details 5)

12 Months Ended

Dec. 31, 2025 Dec. 31, 2024 Dec. 31, 2023 Dec. 31, 2022

Benefit Obligation [Member]

Defined Benefit Plan Disclosure (Table Amounts)

|                                                                                               |       |       |       |
|-----------------------------------------------------------------------------------------------|-------|-------|-------|
| Initial health care cost trend rate assumed for the next year                                 | 5.90% | 6.20% | 6.50% |
| Rate to which the health care cost trend rate is assumed to decline (the ultimate trend rate) | 5.00% | 5.00% | 5.00% |
| Year that the health care cost trend rate reaches the ultimate trend rate                     | 2028  | 2028  | 2028  |

Pension Benefits

Assumptions Used to Determine Benefit Obligation

|                                                                                                   |       |       |       |
|---------------------------------------------------------------------------------------------------|-------|-------|-------|
| Discount rate                                                                                     | 5.73% | 5.15% | 5.54% |
| Initial cash balance crediting rate assumed for the next year                                     | 4.78% | 4.02% | 3.96% |
| Rate to which the cash balance crediting rate is assumed to increase/decrease (the ultimate rate) | 4.90% | 4.02% | 3.88% |
| Year that the cash balance crediting rate reaches the ultimate rate                               | 2030  | 2029  | 2028  |
| Rate of compensation increase                                                                     | 3.00% | 3.00% | 3.00% |

Assumptions Used to Determine Benefit Cost

|                                                                                          |       |       |  |
|------------------------------------------------------------------------------------------|-------|-------|--|
| Discount rate                                                                            | 5.15% | 5.54% |  |
| Expected long-term return on plan assets                                                 | 7.50% | 7.50% |  |
| Initial cash balance crediting rate assumed for the next year                            | 4.02% | 3.96% |  |
| Rate to which the cash balance crediting rate is assumed to increase (the ultimate rate) | 4.02% | 3.88% |  |
| Year that the cash balance crediting rate reaches the ultimate rate                      | 2029  | 2028  |  |
| Rate of compensation increase                                                            | 3.00% | 3.00% |  |

Pension Benefits | Subsequent Event [Member]

Assumptions Used to Determine Benefit Cost

|                                                                                          |       |  |  |
|------------------------------------------------------------------------------------------|-------|--|--|
| Discount rate                                                                            | 5.73% |  |  |
| Expected long-term return on plan assets                                                 | 7.50% |  |  |
| Initial cash balance crediting rate assumed for the next year                            | 4.78% |  |  |
| Rate to which the cash balance crediting rate is assumed to increase (the ultimate rate) | 4.90% |  |  |
| Year that the cash balance crediting rate reaches the ultimate rate                      | 2030  |  |  |
| Rate of compensation increase                                                            | 3.00% |  |  |

Post-retirement Benefit Cost [Member]

Defined Benefit Plan Disclosure (Table Amounts)

|                                                                                               |       |       |  |
|-----------------------------------------------------------------------------------------------|-------|-------|--|
| Initial health care cost trend rate assumed for the next year                                 | 6.20% | 6.50% |  |
| Rate to which the health care cost trend rate is assumed to decline (the ultimate trend rate) | 5.00% | 5.00% |  |
| Year that the health care cost trend rate reaches the ultimate trend rate                     | 2028  | 2028  |  |

Post-retirement Benefit Cost [Member] | Subsequent Event [Member]

Defined Benefit Plan Disclosure (Table Amounts)

|                                                                                               |       |  |  |
|-----------------------------------------------------------------------------------------------|-------|--|--|
| Initial health care cost trend rate assumed for the next year                                 | 5.90% |  |  |
| Rate to which the health care cost trend rate is assumed to decline (the ultimate trend rate) | 5.00% |  |  |
| Year that the health care cost trend rate reaches the ultimate trend rate                     | 2028  |  |  |

Medical and Life Benefits

Assumptions Used to Determine Benefit Obligation

|                                                   |       |       |       |
|---------------------------------------------------|-------|-------|-------|
| Discount rate                                     | 5.69% | 5.20% | 5.57% |
| <b>Assumptions Used to Determine Benefit Cost</b> |       |       |       |
| Discount rate                                     | 5.20% | 5.57% |       |

|                                                                        |               |               |
|------------------------------------------------------------------------|---------------|---------------|
| Expected long-term return on plan assets                               | 7.12%         | 7.23%         |
| Medical and Life Benefits   Subsequent Event [Member]                  |               |               |
| Assumptions Used to Determine Benefit Cost                             |               |               |
| Discount rate                                                          | 5.69%         |               |
| Expected long-term return on plan assets                               | 7.08%         |               |
| XML 91 R73.htm IDEA: XBRL DOCUMENT                                     |               |               |
| Retirement Benefits                                                    |               |               |
| Plan Asset Allocation                                                  | Dec. 31, 2024 |               |
| (Details 6)                                                            |               |               |
| Cash and cash equivalents   Minimum                                    |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 0.00%         |               |
| Cash and cash equivalents   Maximum [Member]                           |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 12.00%        |               |
| Global public equities   Minimum                                       |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 18.00%        |               |
| Global public equities   Maximum [Member]                              |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 38.00%        |               |
| Fixed-income securities   Minimum                                      |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 35.00%        |               |
| Fixed-income securities   Maximum [Member]                             |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 55.00%        |               |
| Alternative investments   Minimum                                      |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 10.00%        |               |
| Alternative investments   Maximum [Member]                             |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 30.00%        |               |
| PrivateCreditFunds   Minimum                                           |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 0.00%         |               |
| PrivateCreditFunds   Maximum [Member]                                  |               |               |
| Plan Asset Allocation Ranges (Table Amounts) [Abstract]                |               |               |
| Defined Benefit Plan, Plan Assets, Target Allocation, Percentage       | 15.00%        |               |
| XML 92 R74.htm IDEA: XBRL DOCUMENT                                     |               |               |
| Retirement Benefits                                                    |               |               |
| Categorization of                                                      |               |               |
| Plan Assets (Details                                                   | Dec. 31, 2024 | Dec. 31, 2023 |
| 7) - USD (\$)                                                          |               |               |
| \$ in Millions                                                         |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | \$ 31,006     | \$ 31,525     |
| Cash and cash equivalents                                              |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 974           | 915           |
| U.S. equities                                                          |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 1,824         | 1,713         |
| International equities                                                 |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 1,570         | 1,506         |
| U.S. Treasuries                                                        |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 3,537         | 3,890         |
| U.S. Government Agency                                                 |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 97            | 124           |
| Non-U.S. Government                                                    |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 283           | 176           |
| Corporate debt                                                         |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 3,743         | 4,506         |
| Asset backed                                                           |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 1,301         | 436           |
| High yield debt                                                        |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 32            | 33            |
| Bank loans                                                             |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 16            | 15            |
| Derivatives and other assets                                           |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 46            | 109           |
| Notes Payable, Other Payables [Member]                                 |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | (541)         | (24)          |
| NOC Common Stock [Member]                                              |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 1             | 0             |
| Level 1                                                                |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 3,671         | 3,454         |
| Level 1   Cash and cash equivalents                                    |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 223           | 85            |
| Level 1   U.S. equities                                                |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 1,824         | 1,712         |
| Level 1   International equities                                       |               |               |
| Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract] |               |               |
| Fair value of plan assets                                              | 1,570         | 1,506         |
| Level 1   U.S. Treasuries                                              |               |               |



|                                                                                        |          |          |
|----------------------------------------------------------------------------------------|----------|----------|
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 17       | 0        |
| <a href="#">Level 1   Non-U.S. Government</a>                                          |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 1        | 0        |
| <a href="#">Level 1   Corporate debt</a>                                               |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 79       | 74       |
| <a href="#">Level 1   High yield debt</a>                                              |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 12       | 13       |
| <a href="#">Level 1   Derivatives and other assets</a>                                 |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | (55)     | 64       |
| <a href="#">Level 2</a>                                                                |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 9,750    | 9,967    |
| <a href="#">Level 2   Cash and cash equivalents</a>                                    |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 751      | 830      |
| <a href="#">Level 2   U.S. equities</a>                                                |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 0        | 1        |
| <a href="#">Level 2   U.S. Treasuries</a>                                              |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 3,520    | 3,890    |
| <a href="#">Level 2   U.S. Government Agency</a>                                       |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 97       | 124      |
| <a href="#">Level 2   Non-U.S. Government</a>                                          |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 282      | 176      |
| <a href="#">Level 2   Corporate debt</a>                                               |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 3,664    | 4,432    |
| <a href="#">Level 2   Asset backed</a>                                                 |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 1,301    | 436      |
| <a href="#">Level 2   High yield debt</a>                                              |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 20       | 20       |
| <a href="#">Level 2   Bank loans</a>                                                   |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 16       | 15       |
| <a href="#">Level 2   Derivatives and other assets</a>                                 |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 99       | 43       |
| <a href="#">Level 3</a>                                                                |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 2        | 2        |
| <a href="#">Level 3   Derivatives and other assets</a>                                 |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 2        | 2        |
| Fair Value Measured at Net Asset Value Per Share   U.S. equities                       |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 1,486    | 1,294    |
| Fair Value Measured at Net Asset Value Per Share   International equities              |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 4,071    | 3,972    |
| Fair Value Measured at Net Asset Value Per Share   Fixed Income Funds                  |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 3,559    | 4,057    |
| Fair Value Measured at Net Asset Value Per Share   Hedge Funds                         |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 32       | 38       |
| Fair Value Measured at Net Asset Value Per Share   OpportunisticFunds                  |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 1,816    | 3,176    |
| Fair Value Measured at Net Asset Value Per Share   Private Equity Funds [Member]       |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 3,521    | 3,466    |
| Fair Value Measured at Net Asset Value Per Share   Real Estate Funds [Member]          |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 1,860    | 2,123    |
| Fair Value Measured at Net Asset Value Per Share   PrivateCreditFunds                  |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Fair value of plan assets                                                              | 1,779    | 0        |
| <a href="#">Pension and Other Post-retirement benefit plans [Member]</a>               |          |          |
| <a href="#">Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]</a> |          |          |
| Derivative Asset                                                                       | 107      | 172      |
| Derivative Liability                                                                   | (123)    | (101)    |
| Derivative, Notional Amount                                                            | \$ 9,200 | \$ 4,900 |

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|                                                                       |                      |  |
|-----------------------------------------------------------------------|----------------------|--|
| <b>Retirement Benefits</b>                                            | <b>Dec. 31, 2024</b> |  |
| <b>Estimated Future</b>                                               | <b>USD (\$)</b>      |  |
| <b>Benefit Payments</b>                                               |                      |  |
| <b>(Details 8)</b>                                                    |                      |  |
| <b>\$ in Millions</b>                                                 |                      |  |
| <a href="#">Estimated Benefit Payments (Table Amounts) [Abstract]</a> |                      |  |
| <a href="#">2025</a>                                                  | \$ 2,169             |  |
| <a href="#">2026</a>                                                  | 2,213                |  |
| <a href="#">2027</a>                                                  | 2,249                |  |
| <a href="#">2028</a>                                                  | 2,273                |  |
| <a href="#">2029</a>                                                  | 2,289                |  |
| <a href="#">2030 through 2034</a>                                     | 11,382               |  |
| <a href="#">Pension Benefits</a>                                      |                      |  |
| <a href="#">Estimated Benefit Payments (Table Amounts) [Abstract]</a> |                      |  |
| <a href="#">2025</a>                                                  | 2,058                |  |

|                                   |        |
|-----------------------------------|--------|
| <a href="#">2026</a>              | 2,101  |
| <a href="#">2027</a>              | 2,138  |
| <a href="#">2028</a>              | 2,164  |
| <a href="#">2029</a>              | 2,183  |
| <a href="#">2030 through 2034</a> | 10,909 |

Medical and Life Benefits

**[Estimated Benefit Payments \(Table Amounts\) \[Abstract\]](#)**

|                                   |        |
|-----------------------------------|--------|
| <a href="#">2025</a>              | 111    |
| <a href="#">2026</a>              | 112    |
| <a href="#">2027</a>              | 111    |
| <a href="#">2028</a>              | 109    |
| <a href="#">2029</a>              | 106    |
| <a href="#">2030 through 2034</a> | \$ 473 |

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| Retirement Benefits<br>Amounts in<br>Paragraphs -<br>Retirement Benefits<br>(Details 9) - USD (\$)<br>\$ in Millions             | 12 Months Ended             |               |               |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------|---------------|
|                                                                                                                                  | Dec. 31, 2024               | Dec. 31, 2023 | Dec. 31, 2022 |
| <b><a href="#">Defined Contribution Plans Disclosure (Amounts in paragraphs)</a></b>                                             |                             |               |               |
| <a href="#">Defined Contribution Plan, Employer Discretionary Contribution Amount</a>                                            | \$ 657                      | \$ 634        | \$ 558        |
| <b><a href="#">Pension and post-retirement benefits disclosures (Amounts in paragraphs)</a></b>                                  |                             |               |               |
| <a href="#">Accumulated benefit obligation for all defined benefit pension plans</a>                                             | \$ 28,700                   | 30,100        |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Actual Percent Return On Plan Assets</a>                                                                             | 4.70%                       |               |               |
| <a href="#">Yearly Discount Rate change in basis points</a>                                                                      | 58                          |               |               |
| <a href="#">Pension Benefits</a>                                                                                                 |                             |               |               |
| <b><a href="#">Defined Contribution Plans Disclosure (Amounts in paragraphs)</a></b>                                             |                             |               |               |
| <a href="#">Defined Benefit Plan, Expected Future Employer Contributions, Next Fiscal Year</a>                                   | \$ 94                       |               |               |
| <a href="#">Defined Benefit Plan, Plan Assets, Contributions by Employer</a>                                                     | 96                          | 105           |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions</a>                            | 0                           |               |               |
| <a href="#">OPB contributions</a>                                                                                                |                             |               |               |
| <b><a href="#">Defined Contribution Plans Disclosure (Amounts in paragraphs)</a></b>                                             |                             |               |               |
| <a href="#">Defined Benefit Plan, Expected Future Employer Contributions, Next Fiscal Year</a>                                   | 33                          |               |               |
| <a href="#">Defined Benefit Plan, Plan Assets, Contributions by Employer</a>                                                     | 33                          | 34            |               |
| <a href="#">U.S. equities</a>                                                                                                    |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | \$ 0                        | 0             |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Frequency</a>     | daily, monthly or quarterly |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period</a> | 90 days                     |               |               |
| <a href="#">International Equity Securities [Member]</a>                                                                         |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | \$ 0                        | 0             |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Frequency</a>     | daily, monthly or quarterly |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period</a> | 90 days                     |               |               |
| <a href="#">Fixed Income Funds</a>                                                                                               |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | \$ 0                        | 0             |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Frequency</a>     | daily, monthly or quarterly |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period</a> | 2 days                      |               |               |
| <a href="#">Hedge Funds [Member]</a>                                                                                             |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | \$ 6                        | 6             |               |
| <a href="#">OpportunisticFunds</a>                                                                                               |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | 1,300                       | 1,600         |               |
| <a href="#">Private Equity Funds [Member]</a>                                                                                    |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | \$ 1,600                    | 1,900         |               |
| <a href="#">Average investment term, alternative investments</a>                                                                 | 10 years                    |               |               |
| <a href="#">Real Estate Funds</a>                                                                                                |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | \$ 24                       | \$ 28         |               |
| <a href="#">Average investment term, alternative investments</a>                                                                 | 10 years                    |               |               |
| <a href="#">PrivateCreditFunds</a>                                                                                               |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Unfunded Commitments</a>                 | \$ 721                      |               |               |
| <a href="#">Minimum   Hedge Funds [Member]</a>                                                                                   |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period</a> | 5 years                     |               |               |
| <a href="#">Minimum   PrivateCreditFunds</a>                                                                                     |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Average investment term, alternative investments</a>                                                                 | 5 years                     |               |               |
| <a href="#">Maximum   Hedge Funds [Member]</a>                                                                                   |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period</a> | 10 years                    |               |               |
| <a href="#">Maximum   PrivateCreditFunds</a>                                                                                     |                             |               |               |
| <b><a href="#">Information About Plan Assets (Amounts in paragraphs) [Abstract]</a></b>                                          |                             |               |               |
| <a href="#">Average investment term, alternative investments</a>                                                                 | 10 years                    |               |               |

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| Stock Compensation<br>Plans Compensation<br>Expense (Details 1) -<br>USD (\$)<br>\$ in Millions                                       | 12 Months Ended         |               |               |               |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------|---------------|---------------|
|                                                                                                                                       | Dec. 31, 2024           | Dec. 31, 2023 | Dec. 31, 2022 |               |
| <a href="#">Share-Based Payment Arrangement [Abstract]</a>                                                                            |                         |               |               |               |
| <a href="#">Stock-based compensation expense</a>                                                                                      | \$ 101                  | \$ 87         | \$ 99         |               |
| <a href="#">Tax benefits from stock-based compensation expense</a>                                                                    | 15                      | \$ 9          | \$ 10         |               |
| <a href="#">Share-based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Amount</a>                                     | \$ 102                  |               |               |               |
| <a href="#">Weighted-average period for unrecognized compensation expense to be charged to expense</a>                                | 1 year 3 months 18 days |               |               |               |
| <a href="#">XML 96 R78.htm IDEA: XBRL DOCUMENT</a>                                                                                    |                         |               |               |               |
| Stock Compensation<br>Plans Stock Awards<br>(Details 2) - USD (\$)<br>\$ / shares in Units,<br>shares in Thousands,<br>\$ in Millions | 12 Months Ended         |               |               |               |
|                                                                                                                                       | Dec. 31, 2024           | Dec. 31, 2023 | Dec. 31, 2022 | Dec. 31, 2021 |
| <a href="#">Share-based Compensation by Share-based Payment Award</a>                                                                 |                         |               |               |               |

|                                                                                                                                         |                                                                                            |                         |                         |                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------------------------|
| <a href="#">Stock awards, outstanding, weighted average remaining contractual terms</a>                                                 | 1 year 4 months 24 days                                                                    | 1 year 3 months 18 days | 1 year 4 months 24 days | 1 year 4 months 24 days                   |
| <a href="#">Stock issued, settlement of fully vested stock awards, fair value grant date</a>                                            | \$ 86                                                                                      | \$ 99                   | \$ 93                   |                                           |
| <b>Stock Award Activity (Table)</b>                                                                                                     |                                                                                            |                         |                         |                                           |
| <a href="#">Stock awards - outstanding at period start</a>                                                                              | 499                                                                                        | 561                     | 580                     |                                           |
| <a href="#">Stock awards - granted</a>                                                                                                  | 238                                                                                        | 216                     | 238                     |                                           |
| <a href="#">Stock awards - vested</a>                                                                                                   | 221                                                                                        | 249                     | 226                     |                                           |
| <a href="#">Stock awards - forfeited</a>                                                                                                | 47                                                                                         | 29                      | 31                      |                                           |
| <a href="#">Stock awards - outstanding at period end</a>                                                                                | 469                                                                                        | 499                     | 561                     | 580                                       |
| <b>Stock Awards, Weighted Average Grant Date Fair Value [Table]</b>                                                                     |                                                                                            |                         |                         |                                           |
| <a href="#">Weighted-average grant date fair value - outstanding at period start</a>                                                    | \$ 417                                                                                     | \$ 344                  | \$ 314                  |                                           |
| <a href="#">Weighted-average grant date fair value - granted</a>                                                                        | 465                                                                                        | 478                     | 397                     |                                           |
| <a href="#">Weighted-average grant date fair value - vested</a>                                                                         | 366                                                                                        | 315                     | 327                     |                                           |
| <a href="#">Weighted-average grant date fair value - forfeited</a>                                                                      | 450                                                                                        | 373                     | 320                     |                                           |
| <a href="#">Weighted-average grant date fair value - outstanding at period end</a>                                                      | \$ 462                                                                                     | \$ 417                  | \$ 344                  | \$ 314                                    |
| <a href="#">2024 Long-Term Incentive Stock Plan</a>                                                                                     |                                                                                            |                         |                         |                                           |
| <b>Share-based Compensation by Share-based Payment Award</b>                                                                            |                                                                                            |                         |                         |                                           |
| <a href="#">Share-based Compensation Arrangement by Share-based Payment Award, Number of Shares Available for Grant</a>                 | 5,800                                                                                      |                         |                         |                                           |
| <a href="#">XML 97 R79.htm IDEA: XBRL DOCUMENT</a>                                                                                      |                                                                                            |                         |                         |                                           |
| <b>Stock Compensation Plans Cash Awards (Details 3) - USD (\$)</b>                                                                      |                                                                                            |                         |                         |                                           |
| \$ in Millions                                                                                                                          |                                                                                            |                         |                         |                                           |
| <b>Share-based Compensation by Share-based Payment Award</b>                                                                            |                                                                                            |                         |                         |                                           |
| <a href="#">Share-based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Amount</a>                                       |                                                                                            |                         |                         | 12 Months Ended                           |
| <a href="#">Minimum   Grants During 2010 and After [Member]</a>                                                                         |                                                                                            |                         |                         | Dec. 31, 2024 Dec. 31, 2023 Dec. 31, 2022 |
| <b>Share-based Compensation by Share-based Payment Award</b>                                                                            |                                                                                            |                         |                         |                                           |
| <a href="#">Share Based Compensation Arrangement By Share Based Payment Award Award Grants Percentage Financial Metric Met Exceeded</a> | 0.00%                                                                                      |                         |                         |                                           |
| <a href="#">Maximum [Member]   Grants During 2010 and After [Member]</a>                                                                |                                                                                            |                         |                         |                                           |
| <b>Share-based Compensation by Share-based Payment Award</b>                                                                            |                                                                                            |                         |                         |                                           |
| <a href="#">Share Based Compensation Arrangement By Share Based Payment Award Award Grants Percentage Financial Metric Met Exceeded</a> | 200.00%                                                                                    |                         |                         |                                           |
| <a href="#">Cash Units and Cash Performance Units [Member]</a>                                                                          |                                                                                            |                         |                         |                                           |
| <b>Share-based Compensation by Share-based Payment Award</b>                                                                            |                                                                                            |                         |                         |                                           |
| <a href="#">Share-based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Amount</a>                                       |                                                                                            |                         |                         | 12 Months Ended                           |
| <a href="#">Cash Units and Cash Performance Units [Member]   Minimum</a>                                                                |                                                                                            |                         |                         | Dec. 31, 2024 Dec. 31, 2023 Dec. 31, 2022 |
| <b>Share-based Compensation by Share-based Payment Award</b>                                                                            |                                                                                            |                         |                         |                                           |
| <a href="#">Deferred Compensation Cash-based Arrangements, Liability, Current</a>                                                       | 35                                                                                         |                         | \$ 34                   | \$ 32                                     |
| <a href="#">Cash Units and Cash Performance Units [Member]   Maximum [Member]</a>                                                       |                                                                                            |                         |                         |                                           |
| <b>Share-based Compensation by Share-based Payment Award</b>                                                                            |                                                                                            |                         |                         |                                           |
| <a href="#">Deferred Compensation Cash-based Arrangements, Liability, Current</a>                                                       |                                                                                            |                         |                         | 12 Months Ended                           |
| <a href="#">Deferred Compensation Cash-based Arrangements, Liability, Current</a>                                                       | \$ 200                                                                                     |                         | \$ 192                  | \$ 183                                    |
| <a href="#">XML 98 R80.htm IDEA: XBRL DOCUMENT</a>                                                                                      |                                                                                            |                         |                         |                                           |
| <b>Leases Total Lease Cost (Details 1) - USD (\$)</b>                                                                                   |                                                                                            |                         |                         |                                           |
| \$ in Millions                                                                                                                          |                                                                                            |                         |                         |                                           |
| <b>Leases [Abstract]</b>                                                                                                                |                                                                                            |                         |                         |                                           |
| <a href="#">Operating lease cost</a>                                                                                                    | \$ 370                                                                                     | \$ 358                  | \$ 332                  |                                           |
| <a href="#">Variable lease cost</a>                                                                                                     | 49                                                                                         | 48                      | 35                      |                                           |
| <a href="#">Short-term lease cost</a>                                                                                                   | 51                                                                                         | 69                      | 51                      |                                           |
| <a href="#">Total lease cost</a>                                                                                                        | \$ 470                                                                                     | \$ 475                  | \$ 418                  |                                           |
| <a href="#">XML 99 R81.htm IDEA: XBRL DOCUMENT</a>                                                                                      |                                                                                            |                         |                         |                                           |
| <b>Leases Balance Sheet (Details 2) - USD (\$)</b>                                                                                      |                                                                                            |                         |                         |                                           |
| \$ in Millions                                                                                                                          |                                                                                            |                         |                         |                                           |
| <b>Assets and Liabilities, Lessee [Abstract]</b>                                                                                        |                                                                                            |                         |                         |                                           |
| <a href="#">Operating lease right-of-use assets</a>                                                                                     | \$ 1,770                                                                                   | \$ 1,818                |                         |                                           |
| <a href="#">Operating Lease, Liability, Current</a>                                                                                     | 324                                                                                        | 300                     |                         |                                           |
| <a href="#">Operating Lease, Liability, Noncurrent</a>                                                                                  | 1,798                                                                                      | 1,892                   |                         |                                           |
| <a href="#">Operating Lease, Liability, Total</a>                                                                                       | \$ 2,122                                                                                   | \$ 2,192                |                         |                                           |
| <a href="#">XML 100 R82.htm IDEA: XBRL DOCUMENT</a>                                                                                     |                                                                                            |                         |                         |                                           |
| <b>Leases Lease Other Supplemental Information (Details 3) - USD (\$)</b>                                                               |                                                                                            |                         |                         |                                           |
| \$ in Millions                                                                                                                          |                                                                                            |                         |                         |                                           |
| <b>Lease Other Supplemental Information (Details 3) [Abstract]</b>                                                                      |                                                                                            |                         |                         |                                           |
| <a href="#">Operating Lease, Payments</a>                                                                                               | \$ 373                                                                                     | \$ 341                  |                         |                                           |
| <a href="#">Right-of-Use Asset Obtained in Exchange for Operating Lease Liability</a>                                                   | \$ 272                                                                                     | \$ 314                  |                         |                                           |
| <a href="#">Operating Lease, Weighted Average Remaining Lease Term</a>                                                                  | 10 years 4 months 24 days                                                                  | 11 years                |                         |                                           |
| <a href="#">Operating Lease, Weighted Average Discount Rate, Percent</a>                                                                | 4.00%                                                                                      | 3.90%                   |                         |                                           |
| <a href="#">XML 101 R83.htm IDEA: XBRL DOCUMENT</a>                                                                                     |                                                                                            |                         |                         |                                           |
| <b>Leases Lease Maturities (Details 4) - USD (\$)</b>                                                                                   |                                                                                            |                         |                         |                                           |
| \$ in Millions                                                                                                                          |                                                                                            |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Lease Not yet Commenced, Value</a>                                                                 | \$ 498                                                                                     |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Payments, Due Next Year</a>                                                             | 388                                                                                        |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Payments, Due Year Two</a>                                                              | 357                                                                                        |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Payments, Due Year Three</a>                                                            | 299                                                                                        |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Payments, Due Year Four</a>                                                             | 258                                                                                        |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Payments, Due Year Five</a>                                                             | 225                                                                                        |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Payments, Due after Year Five</a>                                                       | 1,091                                                                                      |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Payments, Due</a>                                                                       | 2,618                                                                                      |                         |                         |                                           |
| <a href="#">Lessee, Operating Lease, Liability, Undiscounted Excess Amount</a>                                                          | (496)                                                                                      |                         |                         |                                           |
| <a href="#">Operating Lease, Liability</a>                                                                                              | \$ 2,122                                                                                   | \$ 2,192                |                         |                                           |
| <a href="#">XML 102 R84.htm IDEA: XBRL DOCUMENT</a>                                                                                     |                                                                                            |                         |                         |                                           |
| <b>Segment Reporting (Basis and CODM Disclosures)</b>                                                                                   |                                                                                            |                         |                         |                                           |
| 12 Months Ended                                                                                                                         |                                                                                            |                         |                         |                                           |
| Dec. 31, 2024                                                                                                                           |                                                                                            |                         |                         |                                           |
| <b>Segment Reporting, Disclosure of Entity's Reportable Segments [Abstract]</b>                                                         |                                                                                            |                         |                         |                                           |
| <a href="#">Number of reportable segments</a>                                                                                           | 4                                                                                          |                         |                         |                                           |
| <a href="#">Segment Reporting, Factors Used to Identify Entity's Reportable Segments</a>                                                | We generally organize our segments based on the nature of products and services offered.   |                         |                         |                                           |
| <a href="#">Segment Reporting, CODM, Individual Title and Position or Group Name [Extensible Enumeration]</a>                           | Board of Directors Chairman [Member], Chief Executive Officer [Member], President [Member] |                         |                         |                                           |

[Segment Reporting, Measurement Disclosures \[Abstract\]](#)

[Segment Reporting, CODM, Profit \(Loss\) Measure, How Used, Description](#)

The profitability measure the CODM uses to assess segment performance and allocate resources is segment operating income (and related margin rate, calculated as segment operating income divided by sales) by comparing historical, actual, and forecasted amounts on a regular basis.

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| <a href="#">Segment Information</a><br><a href="#">Reconciliation to Consolidated Operating Income (Details 1) - USD (\$)</a><br><a href="#">\$ in Millions</a> | <b>12 Months Ended</b> |                      |                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------|----------------------|
|                                                                                                                                                                 | <b>Dec. 31, 2024</b>   | <b>Dec. 31, 2023</b> | <b>Dec. 31, 2022</b> |
|                                                                                                                                                                 |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | \$ 41,033              | \$ 39,290            | \$ 36,602            |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 36,663                 | 36,753               | 33,001               |
| <a href="#">Operating income</a>                                                                                                                                | 4,370                  | 2,537                | 3,601                |
| <a href="#">Product [Member]</a>                                                                                                                                |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 32,726                 | 30,897               | 28,522               |
| <a href="#">Service [Member]</a>                                                                                                                                |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 8,307                  | 8,393                | 8,080                |
| <a href="#">Operating Segments</a>                                                                                                                              |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Operating income</a>                                                                                                                                | 4,544                  | 2,760                | 4,253                |
| <a href="#">Operating Segments   Aeronautics Systems</a>                                                                                                        |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 12,030                 | 10,786               | 10,531               |
| <a href="#">Operating income</a>                                                                                                                                | 1,182                  | (473)                | 1,116                |
| <a href="#">Operating Segments   Defense Systems</a>                                                                                                            |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 8,560                  | 8,289                | 7,629                |
| <a href="#">Operating income</a>                                                                                                                                | 866                    | 829                  | 781                  |
| <a href="#">Operating Segments   Mission Systems</a>                                                                                                            |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 11,399                 | 10,895               | 10,396               |
| <a href="#">Operating income</a>                                                                                                                                | 1,598                  | 1,609                | 1,618                |
| <a href="#">Operating Segments   Space Systems</a>                                                                                                              |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 11,731                 | 11,873               | 10,570               |
| <a href="#">Operating income</a>                                                                                                                                | 1,254                  | 1,130                | 1,078                |
| <a href="#">Operating Segments   Product [Member]   Aeronautics Systems</a>                                                                                     |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 8,248                  | 8,942                | 7,161                |
| <a href="#">Operating Segments   Product [Member]   Defense Systems</a>                                                                                         |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 5,304                  | 4,819                | 4,163                |
| <a href="#">Operating Segments   Product [Member]   Mission Systems</a>                                                                                         |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 7,000                  | 6,669                | 6,291                |
| <a href="#">Operating Segments   Product [Member]   Space Systems</a>                                                                                           |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 8,711                  | 8,844                | 7,664                |
| <a href="#">Operating Segments   Service [Member]   Aeronautics Systems</a>                                                                                     |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 2,382                  | 2,099                | 2,042                |
| <a href="#">Operating Segments   Service [Member]   Defense Systems</a>                                                                                         |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 1,641                  | 1,959                | 1,985                |
| <a href="#">Operating Segments   Service [Member]   Mission Systems</a>                                                                                         |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 1,805                  | 1,730                | 1,639                |
| <a href="#">Operating Segments   Service [Member]   Space Systems</a>                                                                                           |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 1,398                  | 1,468                | 1,404                |
| <a href="#">Operating Segments   Intersegment Costs [Member]   Aeronautics Systems</a>                                                                          |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 218                    | 218                  | 212                  |
| <a href="#">Operating Segments   Intersegment Costs [Member]   Defense Systems</a>                                                                              |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 749                    | 682                  | 700                  |
| <a href="#">Operating Segments   Intersegment Costs [Member]   Mission Systems</a>                                                                              |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 996                    | 887                  | 848                  |
| <a href="#">Operating Segments   Intersegment Costs [Member]   Space Systems</a>                                                                                |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Total operating costs and expenses</a>                                                                                                              | 368                    | 431                  | 424                  |
| <a href="#">Intersegment OM</a>                                                                                                                                 |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 2,687                  | 2,553                | 2,524                |
| <a href="#">Operating income</a>                                                                                                                                | 356                    | 335                  | 340                  |
| <a href="#">Intersegment OM   Aeronautics Systems</a>                                                                                                           |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 243                    | 240                  | 239                  |
| <a href="#">Operating income</a>                                                                                                                                | 25                     | 22                   | 27                   |
| <a href="#">Intersegment OM   Defense Systems</a>                                                                                                               |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 855                    | 776                  | 794                  |
| <a href="#">Operating income</a>                                                                                                                                | 106                    | 94                   | 94                   |
| <a href="#">Intersegment OM   Mission Systems</a>                                                                                                               |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 1,177                  | 1,054                | 1,015                |
| <a href="#">Operating income</a>                                                                                                                                | 181                    | 167                  | 167                  |
| <a href="#">Intersegment OM   Space Systems</a>                                                                                                                 |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |
| <a href="#">Sales</a>                                                                                                                                           | 412                    | 483                  | 476                  |
| <a href="#">Operating income</a>                                                                                                                                | 44                     | 52                   | 52                   |
| <a href="#">Segment Reporting, Reconciling Item, Excluding Corporate Nonsegment [Member]</a>                                                                    |                        |                      |                      |
| <a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a>                                                                                |                        |                      |                      |

|                                                                                         |          |          |          |
|-----------------------------------------------------------------------------------------|----------|----------|----------|
| <a href="#">FAS/CAS Operating Adjustment</a>                                            | 40       | (82)     | (200)    |
| <a href="#">Segment Reporting, Reconciling Item, Corporate Nonsegment [Member]</a>      |          |          |          |
| <b><a href="#">Sales and Service Revenues by Segment (Table Amounts) [Abstract]</a></b> |          |          |          |
| <a href="#">Operating income</a>                                                        | \$ (214) | \$ (141) | \$ (452) |

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| Segment Information | 12 Months Ended |               |               |
|---------------------|-----------------|---------------|---------------|
| Sales by Customer   |                 |               |               |
| Type (Details 2) -  | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
| USD (\$)            |                 |               |               |
| \$ in Millions      |                 |               |               |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                  |           |           |           |
|----------------------------------|-----------|-----------|-----------|
| <a href="#">Sales</a>            | \$ 41,033 | \$ 39,290 | \$ 36,602 |
| <a href="#">Sales percentage</a> | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">US Government</a>    |           |           |           |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                  |           |           |           |
|----------------------------------|-----------|-----------|-----------|
| <a href="#">Sales</a>            | \$ 35,436 | \$ 33,882 | \$ 31,323 |
| <a href="#">Sales percentage</a> | 87.00%    | 86.00%    | 86.00%    |
| <a href="#">International</a>    |           |           |           |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                  |          |          |          |
|----------------------------------|----------|----------|----------|
| <a href="#">Sales</a>            | \$ 5,000 | \$ 4,905 | \$ 4,848 |
| <a href="#">Sales percentage</a> | 12.00%   | 13.00%   | 13.00%   |
| <a href="#">Other Customers</a>  |          |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                    |        |        |        |
|------------------------------------|--------|--------|--------|
| <a href="#">Sales</a>              | \$ 597 | \$ 503 | \$ 431 |
| <a href="#">Sales percentage</a>   | 1.00%  | 1.00%  | 1.00%  |
| <a href="#">Intersegment Sales</a> |        |        |        |

**[Revenue, Major Customer \[Line Items\]](#)**

|                       |          |          |          |
|-----------------------|----------|----------|----------|
| <a href="#">Sales</a> | \$ 2,687 | \$ 2,553 | \$ 2,524 |
|-----------------------|----------|----------|----------|

[Aeronautics Systems | US Government](#)

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                     |           |          |          |
|-----------------------------------------------------|-----------|----------|----------|
| <a href="#">Sales</a>                               | \$ 10,087 | \$ 9,132 | \$ 8,930 |
| <a href="#">Sales percentage</a>                    | 86.00%    | 87.00%   | 87.00%   |
| <a href="#">Aeronautics Systems   International</a> |           |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                       |          |          |          |
|-------------------------------------------------------|----------|----------|----------|
| <a href="#">Sales</a>                                 | \$ 1,678 | \$ 1,379 | \$ 1,344 |
| <a href="#">Sales percentage</a>                      | 14.00%   | 13.00%   | 13.00%   |
| <a href="#">Aeronautics Systems   Other Customers</a> |          |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                  |       |       |       |
|----------------------------------|-------|-------|-------|
| <a href="#">Sales</a>            | \$ 22 | \$ 35 | \$ 18 |
| <a href="#">Sales percentage</a> | 0.00% | 0.00% | 0.00% |

[Aeronautics Systems | Operating Segments \[Member\]](#)

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                          |           |           |           |
|----------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Sales</a>                                    | \$ 12,030 | \$ 10,786 | \$ 10,531 |
| <a href="#">Sales percentage</a>                         | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Aeronautics Systems   Intersegment Sales</a> |           |           |           |

**[Revenue, Major Customer \[Line Items\]](#)**

|                       |        |        |        |
|-----------------------|--------|--------|--------|
| <a href="#">Sales</a> | \$ 243 | \$ 240 | \$ 239 |
|-----------------------|--------|--------|--------|

[Defense Systems | US Government](#)

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                 |          |          |          |
|-------------------------------------------------|----------|----------|----------|
| <a href="#">Sales</a>                           | \$ 6,333 | \$ 5,946 | \$ 5,406 |
| <a href="#">Sales percentage</a>                | 82.00%   | 79.00%   | 79.00%   |
| <a href="#">Defense Systems   International</a> |          |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                   |          |          |          |
|---------------------------------------------------|----------|----------|----------|
| <a href="#">Sales</a>                             | \$ 1,301 | \$ 1,491 | \$ 1,358 |
| <a href="#">Sales percentage</a>                  | 17.00%   | 20.00%   | 20.00%   |
| <a href="#">Defense Systems   Other Customers</a> |          |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                               |       |       |       |
|---------------------------------------------------------------|-------|-------|-------|
| <a href="#">Sales</a>                                         | \$ 71 | \$ 76 | \$ 71 |
| <a href="#">Sales percentage</a>                              | 1.00% | 1.00% | 1.00% |
| <a href="#">Defense Systems   Operating Segments [Member]</a> |       |       |       |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                      |          |          |          |
|------------------------------------------------------|----------|----------|----------|
| <a href="#">Sales</a>                                | \$ 8,560 | \$ 8,289 | \$ 7,629 |
| <a href="#">Sales percentage</a>                     | 100.00%  | 100.00%  | 100.00%  |
| <a href="#">Defense Systems   Intersegment Sales</a> |          |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                       |        |        |        |
|-----------------------|--------|--------|--------|
| <a href="#">Sales</a> | \$ 855 | \$ 776 | \$ 794 |
|-----------------------|--------|--------|--------|

[Mission Systems \[Member\] | US Government](#)

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                          |          |          |          |
|----------------------------------------------------------|----------|----------|----------|
| <a href="#">Sales</a>                                    | \$ 8,322 | \$ 7,999 | \$ 7,471 |
| <a href="#">Sales percentage</a>                         | 81.00%   | 81.00%   | 80.00%   |
| <a href="#">Mission Systems [Member]   International</a> |          |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                            |          |          |          |
|------------------------------------------------------------|----------|----------|----------|
| <a href="#">Sales</a>                                      | \$ 1,809 | \$ 1,757 | \$ 1,809 |
| <a href="#">Sales percentage</a>                           | 18.00%   | 18.00%   | 19.00%   |
| <a href="#">Mission Systems [Member]   Other Customers</a> |          |          |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                                        |       |       |        |
|------------------------------------------------------------------------|-------|-------|--------|
| <a href="#">Sales</a>                                                  | \$ 91 | \$ 85 | \$ 101 |
| <a href="#">Sales percentage</a>                                       | 1.00% | 1.00% | 1.00%  |
| <a href="#">Mission Systems [Member]   Operating Segments [Member]</a> |       |       |        |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                               |           |           |           |
|---------------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Sales</a>                                         | \$ 11,399 | \$ 10,895 | \$ 10,396 |
| <a href="#">Sales percentage</a>                              | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Mission Systems [Member]   Intersegment Sales</a> |           |           |           |

**[Revenue, Major Customer \[Line Items\]](#)**

|                       |          |          |          |
|-----------------------|----------|----------|----------|
| <a href="#">Sales</a> | \$ 1,177 | \$ 1,054 | \$ 1,015 |
|-----------------------|----------|----------|----------|

[Space Systems | US Government](#)

**[Revenue, Major Customer \[Line Items\]](#)**

|                                               |           |           |          |
|-----------------------------------------------|-----------|-----------|----------|
| <a href="#">Sales</a>                         | \$ 10,694 | \$ 10,805 | \$ 9,516 |
| <a href="#">Sales percentage</a>              | 94.00%    | 95.00%    | 95.00%   |
| <a href="#">Space Systems   International</a> |           |           |          |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                 |        |        |        |
|-------------------------------------------------|--------|--------|--------|
| <a href="#">Sales</a>                           | \$ 212 | \$ 278 | \$ 337 |
| <a href="#">Sales percentage</a>                | 2.00%  | 2.00%  | 3.00%  |
| <a href="#">Space Systems   Other Customers</a> |        |        |        |

**[Revenue, Major Customer \[Line Items\]](#)**

|                                                             |        |        |        |
|-------------------------------------------------------------|--------|--------|--------|
| <a href="#">Sales</a>                                       | \$ 413 | \$ 307 | \$ 241 |
| <a href="#">Sales percentage</a>                            | 4.00%  | 3.00%  | 2.00%  |
| <a href="#">Space Systems   Operating Segments [Member]</a> |        |        |        |

|                                                      |           |           |           |
|------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenue, Major Customer [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                | \$ 11,731 | \$ 11,873 | \$ 10,570 |
| <a href="#">Sales percentage</a>                     | 100.00%   | 100.00%   | 100.00%   |

[Space Systems | Intersegment Sales](#)

|                                                      |        |        |        |
|------------------------------------------------------|--------|--------|--------|
| <a href="#">Revenue, Major Customer [Line Items]</a> |        |        |        |
| <a href="#">Sales</a>                                | \$ 412 | \$ 483 | \$ 476 |

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|                            |                        |                      |                      |
|----------------------------|------------------------|----------------------|----------------------|
| <b>Segment Information</b> | <b>12 Months Ended</b> |                      |                      |
| <b>Sales by Contract</b>   |                        |                      |                      |
| <b>Type (Details 3) -</b>  | <b>Dec. 31, 2024</b>   | <b>Dec. 31, 2023</b> | <b>Dec. 31, 2022</b> |
| <b>USD (\$)</b>            |                        |                      |                      |
| <b>\$ in Millions</b>      |                        |                      |                      |

|                                                     |           |           |           |
|-----------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                               | \$ 41,033 | \$ 39,290 | \$ 36,602 |
| <a href="#">Sales percentage</a>                    | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Cost-type</a>                           |           |           |           |

|                                                     |           |           |           |
|-----------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                               | \$ 20,964 | \$ 20,979 | \$ 18,711 |
| <a href="#">Sales percentage</a>                    | 51.00%    | 53.00%    | 51.00%    |
| <a href="#">Fixed-price</a>                         |           |           |           |

|                                                     |           |           |           |
|-----------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                               | \$ 20,069 | \$ 18,311 | \$ 17,891 |
| <a href="#">Sales percentage</a>                    | 49.00%    | 47.00%    | 49.00%    |
| <a href="#">Intersegment Sales</a>                  |           |           |           |

|                                                     |          |          |          |
|-----------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |          |          |          |
| <a href="#">Sales</a>                               | \$ 2,687 | \$ 2,553 | \$ 2,524 |
| <a href="#">Aeronautics Systems   Cost-type</a>     |          |          |          |

|                                                     |          |          |          |
|-----------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |          |          |          |
| <a href="#">Sales</a>                               | \$ 5,373 | \$ 5,235 | \$ 5,013 |
| <a href="#">Sales percentage</a>                    | 46.00%   | 50.00%   | 49.00%   |
| <a href="#">Aeronautics Systems   Fixed-price</a>   |          |          |          |

|                                                                   |          |          |          |
|-------------------------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>               |          |          |          |
| <a href="#">Sales</a>                                             | \$ 6,414 | \$ 5,311 | \$ 5,279 |
| <a href="#">Sales percentage</a>                                  | 54.00%   | 50.00%   | 51.00%   |
| <a href="#">Aeronautics Systems   Operating Segments [Member]</a> |          |          |          |

|                                                          |           |           |           |
|----------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>      |           |           |           |
| <a href="#">Sales</a>                                    | \$ 12,030 | \$ 10,786 | \$ 10,531 |
| <a href="#">Sales percentage</a>                         | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Aeronautics Systems   Intersegment Sales</a> |           |           |           |

|                                                     |        |        |        |
|-----------------------------------------------------|--------|--------|--------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |        |        |        |
| <a href="#">Sales</a>                               | \$ 243 | \$ 240 | \$ 239 |
| <a href="#">Defense Systems   Cost-type</a>         |        |        |        |

|                                                     |          |          |          |
|-----------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |          |          |          |
| <a href="#">Sales</a>                               | \$ 4,002 | \$ 3,991 | \$ 3,516 |
| <a href="#">Sales percentage</a>                    | 52.00%   | 53.00%   | 51.00%   |
| <a href="#">Defense Systems   Fixed-price</a>       |          |          |          |

|                                                               |          |          |          |
|---------------------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>           |          |          |          |
| <a href="#">Sales</a>                                         | \$ 3,703 | \$ 3,522 | \$ 3,319 |
| <a href="#">Sales percentage</a>                              | 48.00%   | 47.00%   | 49.00%   |
| <a href="#">Defense Systems   Operating Segments [Member]</a> |          |          |          |

|                                                      |          |          |          |
|------------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>  |          |          |          |
| <a href="#">Sales</a>                                | \$ 8,560 | \$ 8,289 | \$ 7,629 |
| <a href="#">Sales percentage</a>                     | 100.00%  | 100.00%  | 100.00%  |
| <a href="#">Defense Systems   Intersegment Sales</a> |          |          |          |

|                                                      |        |        |        |
|------------------------------------------------------|--------|--------|--------|
| <a href="#">Revenue, Contract Type [Line Items]</a>  |        |        |        |
| <a href="#">Sales</a>                                | \$ 855 | \$ 776 | \$ 794 |
| <a href="#">Mission Systems [Member]   Cost-type</a> |        |        |        |

|                                                        |          |          |          |
|--------------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>    |          |          |          |
| <a href="#">Sales</a>                                  | \$ 4,589 | \$ 4,116 | \$ 3,622 |
| <a href="#">Sales percentage</a>                       | 45.00%   | 42.00%   | 39.00%   |
| <a href="#">Mission Systems [Member]   Fixed-price</a> |          |          |          |

|                                                                        |          |          |          |
|------------------------------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>                    |          |          |          |
| <a href="#">Sales</a>                                                  | \$ 5,633 | \$ 5,725 | \$ 5,759 |
| <a href="#">Sales percentage</a>                                       | 55.00%   | 58.00%   | 61.00%   |
| <a href="#">Mission Systems [Member]   Operating Segments [Member]</a> |          |          |          |

|                                                               |           |           |           |
|---------------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>           |           |           |           |
| <a href="#">Sales</a>                                         | \$ 11,399 | \$ 10,895 | \$ 10,396 |
| <a href="#">Sales percentage</a>                              | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Mission Systems [Member]   Intersegment Sales</a> |           |           |           |

|                                                     |          |          |          |
|-----------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |          |          |          |
| <a href="#">Sales</a>                               | \$ 1,177 | \$ 1,054 | \$ 1,015 |
| <a href="#">Space Systems   Cost-type</a>           |          |          |          |

|                                                     |          |          |          |
|-----------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |          |          |          |
| <a href="#">Sales</a>                               | \$ 7,000 | \$ 7,637 | \$ 6,560 |
| <a href="#">Sales percentage</a>                    | 62.00%   | 67.00%   | 65.00%   |
| <a href="#">Space Systems   Fixed-price</a>         |          |          |          |

|                                                             |          |          |          |
|-------------------------------------------------------------|----------|----------|----------|
| <a href="#">Revenue, Contract Type [Line Items]</a>         |          |          |          |
| <a href="#">Sales</a>                                       | \$ 4,319 | \$ 3,753 | \$ 3,534 |
| <a href="#">Sales percentage</a>                            | 38.00%   | 33.00%   | 35.00%   |
| <a href="#">Space Systems   Operating Segments [Member]</a> |          |          |          |

|                                                     |           |           |           |
|-----------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                               | \$ 11,731 | \$ 11,873 | \$ 10,570 |
| <a href="#">Sales percentage</a>                    | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Space Systems   Intersegment Sales</a>  |           |           |           |

|                                                     |        |        |        |
|-----------------------------------------------------|--------|--------|--------|
| <a href="#">Revenue, Contract Type [Line Items]</a> |        |        |        |
| <a href="#">Sales</a>                               | \$ 412 | \$ 483 | \$ 476 |

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|                               |                        |                      |                      |
|-------------------------------|------------------------|----------------------|----------------------|
| <b>Segment Information</b>    | <b>12 Months Ended</b> |                      |                      |
| <b>Sales by Geographic</b>    |                        |                      |                      |
| <b>Location (Details 4) -</b> | <b>Dec. 31, 2024</b>   | <b>Dec. 31, 2023</b> | <b>Dec. 31, 2022</b> |
| <b>USD (\$)</b>               |                        |                      |                      |
| <b>\$ in Millions</b>         |                        |                      |                      |

|                                                                                     |           |           |           |
|-------------------------------------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 41,033 | \$ 39,290 | \$ 36,602 |
| <a href="#">Sales percentage</a>                                                    | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">United States</a>                                                       |           |           |           |

|                                                                                     |           |           |           |
|-------------------------------------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 36,033 | \$ 34,385 | \$ 31,754 |



|                                                                                     |           |           |           |
|-------------------------------------------------------------------------------------|-----------|-----------|-----------|
| <a href="#">Sales percentage</a>                                                    | 88.00%    | 88.00%    | 87.00%    |
| <a href="#">Asia/Pacific</a>                                                        |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 1,552  | \$ 1,568  | \$ 1,802  |
| <a href="#">Sales percentage</a>                                                    | 4.00%     | 4.00%     | 5.00%     |
| <a href="#">All Other</a>                                                           |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 611    | \$ 882    | \$ 794    |
| <a href="#">Sales percentage</a>                                                    | 1.00%     | 2.00%     | 2.00%     |
| <a href="#">Europe</a>                                                              |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 2,837  | \$ 2,455  | \$ 2,252  |
| <a href="#">Sales percentage</a>                                                    | 7.00%     | 6.00%     | 6.00%     |
| <a href="#">Intersegment Sales</a>                                                  |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 2,687  | \$ 2,553  | \$ 2,524  |
| <a href="#">Aeronautics Systems   United States</a>                                 |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 10,109 | \$ 9,167  | \$ 8,948  |
| <a href="#">Sales percentage</a>                                                    | 86.00%    | 87.00%    | 87.00%    |
| <a href="#">Aeronautics Systems   Asia/Pacific</a>                                  |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 694    | \$ 607    | \$ 708    |
| <a href="#">Sales percentage</a>                                                    | 6.00%     | 6.00%     | 7.00%     |
| <a href="#">Aeronautics Systems   All Other</a>                                     |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 37     | \$ 36     | \$ 51     |
| <a href="#">Sales percentage</a>                                                    | 0.00%     | 0.00%     | 0.00%     |
| <a href="#">Aeronautics Systems   Europe</a>                                        |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 947    | \$ 736    | \$ 585    |
| <a href="#">Sales percentage</a>                                                    | 8.00%     | 7.00%     | 6.00%     |
| <a href="#">Aeronautics Systems   Operating Segments [Member]</a>                   |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 12,030 | \$ 10,786 | \$ 10,531 |
| <a href="#">Sales percentage</a>                                                    | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Aeronautics Systems   Intersegment Sales</a>                            |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 243    | \$ 240    | \$ 239    |
| <a href="#">Defense Systems   United States</a>                                     |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 6,404  | \$ 6,022  | \$ 5,477  |
| <a href="#">Sales percentage</a>                                                    | 83.00%    | 80.00%    | 80.00%    |
| <a href="#">Defense Systems   Asia/Pacific</a>                                      |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 344    | \$ 419    | \$ 454    |
| <a href="#">Sales percentage</a>                                                    | 4.00%     | 6.00%     | 7.00%     |
| <a href="#">Defense Systems   All Other</a>                                         |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 191    | \$ 471    | \$ 427    |
| <a href="#">Sales percentage</a>                                                    | 3.00%     | 6.00%     | 6.00%     |
| <a href="#">Defense Systems   Europe</a>                                            |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 766    | \$ 601    | \$ 477    |
| <a href="#">Sales percentage</a>                                                    | 10.00%    | 8.00%     | 7.00%     |
| <a href="#">Defense Systems   Operating Segments [Member]</a>                       |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 8,560  | \$ 8,289  | \$ 7,629  |
| <a href="#">Sales percentage</a>                                                    | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Defense Systems   Intersegment Sales</a>                                |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 855    | \$ 776    | \$ 794    |
| <a href="#">Mission Systems [Member]   United States</a>                            |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 8,413  | \$ 8,084  | \$ 7,572  |
| <a href="#">Sales percentage</a>                                                    | 82.00%    | 82.00%    | 81.00%    |
| <a href="#">Mission Systems [Member]   Asia/Pacific</a>                             |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 472    | \$ 460    | \$ 531    |
| <a href="#">Sales percentage</a>                                                    | 5.00%     | 5.00%     | 6.00%     |
| <a href="#">Mission Systems [Member]   All Other</a>                                |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 347    | \$ 338    | \$ 301    |
| <a href="#">Sales percentage</a>                                                    | 3.00%     | 3.00%     | 3.00%     |
| <a href="#">Mission Systems [Member]   Europe</a>                                   |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 990    | \$ 959    | \$ 977    |
| <a href="#">Sales percentage</a>                                                    | 10.00%    | 10.00%    | 10.00%    |
| <a href="#">Mission Systems [Member]   Operating Segments [Member]</a>              |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 11,399 | \$ 10,895 | \$ 10,396 |
| <a href="#">Sales percentage</a>                                                    | 100.00%   | 100.00%   | 100.00%   |
| <a href="#">Mission Systems [Member]   Intersegment Sales</a>                       |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 1,177  | \$ 1,054  | \$ 1,015  |
| <a href="#">Space Systems   United States</a>                                       |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 11,107 | \$ 11,112 | \$ 9,757  |
| <a href="#">Sales percentage</a>                                                    | 98.00%    | 98.00%    | 97.00%    |
| <a href="#">Space Systems   Asia/Pacific</a>                                        |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 42     | \$ 82     | \$ 109    |
| <a href="#">Sales percentage</a>                                                    | 1.00%     | 1.00%     | 1.00%     |
| <a href="#">Space Systems   All Other</a>                                           |           |           |           |
| <a href="#">Revenues from External Customers and Long-Lived Assets [Line Items]</a> |           |           |           |
| <a href="#">Sales</a>                                                               | \$ 36     | \$ 37     | \$ 15     |
| <a href="#">Sales percentage</a>                                                    | 0.00%     | 0.00%     | 0.00%     |

Revenues from External Customers and Long-Lived Assets [Line Items]

|                  |        |        |        |
|------------------|--------|--------|--------|
| Sales            | \$ 134 | \$ 159 | \$ 213 |
| Sales percentage | 1.00%  | 1.00%  | 2.00%  |

Space Systems | Operating Segments [Member]

Revenues from External Customers and Long-Lived Assets [Line Items]

|                  |           |           |           |
|------------------|-----------|-----------|-----------|
| Sales            | \$ 11,731 | \$ 11,873 | \$ 10,570 |
| Sales percentage | 100.00%   | 100.00%   | 100.00%   |

Space Systems | Intersegment Sales

Revenues from External Customers and Long-Lived Assets [Line Items]

|       |        |        |        |
|-------|--------|--------|--------|
| Sales | \$ 412 | \$ 483 | \$ 476 |
|-------|--------|--------|--------|

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| Segment Information    | 12 Months Ended |               |               |
|------------------------|-----------------|---------------|---------------|
| Segment Sales          |                 |               |               |
| (Details 5) - USD (\$) | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
| \$ in Millions         |                 |               |               |

Segment Reporting Information [Line Items]

|          |           |           |           |
|----------|-----------|-----------|-----------|
| Revenues | \$ 41,033 | \$ 39,290 | \$ 36,602 |
|----------|-----------|-----------|-----------|

Operating Segments [Member] | Aeronautics Systems

Segment Reporting Information [Line Items]

|          |        |        |        |
|----------|--------|--------|--------|
| Revenues | 12,030 | 10,786 | 10,531 |
|----------|--------|--------|--------|

Operating Segments [Member] | Defense Systems

Segment Reporting Information [Line Items]

|          |       |       |       |
|----------|-------|-------|-------|
| Revenues | 8,560 | 8,289 | 7,629 |
|----------|-------|-------|-------|

Operating Segments [Member] | Mission Systems [Member]

Segment Reporting Information [Line Items]

|          |        |        |        |
|----------|--------|--------|--------|
| Revenues | 11,399 | 10,895 | 10,396 |
|----------|--------|--------|--------|

Operating Segments [Member] | Space Systems

Segment Reporting Information [Line Items]

|          |        |        |        |
|----------|--------|--------|--------|
| Revenues | 11,731 | 11,873 | 10,570 |
|----------|--------|--------|--------|

Intersegment Sales

Segment Reporting Information [Line Items]

|          |       |       |       |
|----------|-------|-------|-------|
| Revenues | 2,687 | 2,553 | 2,524 |
|----------|-------|-------|-------|

Intersegment Sales | Aeronautics Systems

Segment Reporting Information [Line Items]

|          |     |     |     |
|----------|-----|-----|-----|
| Revenues | 243 | 240 | 239 |
|----------|-----|-----|-----|

Intersegment Sales | Defense Systems

Segment Reporting Information [Line Items]

|          |     |     |     |
|----------|-----|-----|-----|
| Revenues | 855 | 776 | 794 |
|----------|-----|-----|-----|

Intersegment Sales | Mission Systems [Member]

Segment Reporting Information [Line Items]

|          |       |       |       |
|----------|-------|-------|-------|
| Revenues | 1,177 | 1,054 | 1,015 |
|----------|-------|-------|-------|

Intersegment Sales | Space Systems

Segment Reporting Information [Line Items]

|          |        |        |        |
|----------|--------|--------|--------|
| Revenues | \$ 412 | \$ 483 | \$ 476 |
|----------|--------|--------|--------|

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| Segment Information              | 12 Months Ended |               |               |
|----------------------------------|-----------------|---------------|---------------|
| Intersegment Sales and Operating |                 |               |               |
| Income (Details 6) -             | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
| USD (\$)                         |                 |               |               |
| \$ in Millions                   |                 |               |               |

Segment Reporting Information [Line Items]

|       |           |           |           |
|-------|-----------|-----------|-----------|
| Sales | \$ 41,033 | \$ 39,290 | \$ 36,602 |
|-------|-----------|-----------|-----------|

|                  |       |       |       |
|------------------|-------|-------|-------|
| Operating income | 4,370 | 2,537 | 3,601 |
|------------------|-------|-------|-------|

Intersegment Sales

Segment Reporting Information [Line Items]

|       |       |       |       |
|-------|-------|-------|-------|
| Sales | 2,687 | 2,553 | 2,524 |
|-------|-------|-------|-------|

|                  |     |     |     |
|------------------|-----|-----|-----|
| Operating income | 356 | 335 | 340 |
|------------------|-----|-----|-----|

Intersegment Sales | Aeronautics Systems

Segment Reporting Information [Line Items]

|       |     |     |     |
|-------|-----|-----|-----|
| Sales | 243 | 240 | 239 |
|-------|-----|-----|-----|

|                  |    |    |    |
|------------------|----|----|----|
| Operating income | 25 | 22 | 27 |
|------------------|----|----|----|

Intersegment Sales | Defense Systems

Segment Reporting Information [Line Items]

|       |     |     |     |
|-------|-----|-----|-----|
| Sales | 855 | 776 | 794 |
|-------|-----|-----|-----|

|                  |     |    |    |
|------------------|-----|----|----|
| Operating income | 106 | 94 | 94 |
|------------------|-----|----|----|

Intersegment Sales | Mission Systems

Segment Reporting Information [Line Items]

|       |       |       |       |
|-------|-------|-------|-------|
| Sales | 1,177 | 1,054 | 1,015 |
|-------|-------|-------|-------|

|                  |     |     |     |
|------------------|-----|-----|-----|
| Operating income | 181 | 167 | 167 |
|------------------|-----|-----|-----|

Intersegment Sales | Space Systems

Segment Reporting Information [Line Items]

|       |     |     |     |
|-------|-----|-----|-----|
| Sales | 412 | 483 | 476 |
|-------|-----|-----|-----|

|                  |       |       |       |
|------------------|-------|-------|-------|
| Operating income | \$ 44 | \$ 52 | \$ 52 |
|------------------|-------|-------|-------|

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| Segment Information                                             | 12 Months Ended |               |               |
|-----------------------------------------------------------------|-----------------|---------------|---------------|
| Capital Expenditures and Depreciation and Amortization (Details |                 |               |               |
| 7) - USD (\$)                                                   | Dec. 31, 2024   | Dec. 31, 2023 | Dec. 31, 2022 |
| \$ in Millions                                                  |                 |               |               |

Additional information by Segment (Table Amounts) [Abstract]

|                      |          |          |          |
|----------------------|----------|----------|----------|
| Capital Expenditures | \$ 1,767 | \$ 1,775 | \$ 1,435 |
|----------------------|----------|----------|----------|

|                               |       |       |       |
|-------------------------------|-------|-------|-------|
| Depreciation and amortization | 1,370 | 1,338 | 1,342 |
|-------------------------------|-------|-------|-------|

Aeronautics Systems

Additional information by Segment (Table Amounts) [Abstract]

|                      |     |     |     |
|----------------------|-----|-----|-----|
| Capital Expenditures | 596 | 504 | 490 |
|----------------------|-----|-----|-----|

|                               |     |     |     |
|-------------------------------|-----|-----|-----|
| Depreciation and amortization | 380 | 384 | 322 |
|-------------------------------|-----|-----|-----|

Defense Systems

Additional information by Segment (Table Amounts) [Abstract]

|                      |     |     |     |
|----------------------|-----|-----|-----|
| Capital Expenditures | 139 | 164 | 166 |
|----------------------|-----|-----|-----|

|                               |     |     |     |
|-------------------------------|-----|-----|-----|
| Depreciation and amortization | 180 | 184 | 174 |
|-------------------------------|-----|-----|-----|

Mission Systems

Additional information by Segment (Table Amounts) [Abstract]

|                      |     |     |     |
|----------------------|-----|-----|-----|
| Capital Expenditures | 314 | 288 | 248 |
|----------------------|-----|-----|-----|

|                               |     |     |     |
|-------------------------------|-----|-----|-----|
| Depreciation and amortization | 255 | 246 | 242 |
|-------------------------------|-----|-----|-----|

Space Systems

Additional information by Segment (Table Amounts) [Abstract]



[illegible]



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UHOJXX<@3<E4/<#0/D132UOHO-12<-C3S-5&-MF&GSS:=ZIAKW<#>WU->PM5SUB'DB10V2FD">MAEG(GXHEWUK4\*OK&9=<CI MOWS8:KWD6LYUIC+<#>+M3E?X15-?<  
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Y2AMWU1\_1+6=>HET922.M12-2+<AK&K35MBV173\*9?>+<C@WL1+1<S(D7ND10<1FDE041A+12\_2LGHID97LEW.8Y.(Y6TC1L+<#>1519IK8C(AY MP6.B0300#?>+<6&  
L5:URJQ61U&S:<#>D61+145=>VXTZ713?SRB-BFOTFPI.M#>#3)<#>W(L+P37F37.T%<#>E.OF2B5N.U<#>QRYHV1V\$1B2 M8?>Z<6.LD3&<@R2>+<#>+H=HJZ"N%#>TBB-F(<+<L  
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M%<TMM+<E17L66\_#<H7B4=<K5\*#>B.ZXR\$>B0\_K\_>9.21M2P%>\_16S1?<#>M5(COY>SZSN>\_0A33+1H8+3P.M.4P-19020383HUI51'<+<19'M58GV-E3<OP4M\$JNO\_6)>R<=>A  
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ON&AM=<#>JULMNF/AF=<XTY\$>\_4)<#>F5E=<#>AJ\_84J4<=<#>F&LZML1<+<#>M&G4:Q<#>H&H&G5B%<#>G)<#>S&A%<#>H&H10<+<#>C0\_<#>5A\_<#>B601\$<#>NQH  
M%=<#>712B%>\_K%<#>0<#>RD22P.M1+<#>6.6EIOHKYVWHK)71S9JMDR1)<#>G>SOF MG6&G&3O&BNC5%6\$WRM2T40\_<#>7K<#>1H0WJ5T MG?Z<5PT(8EM:7@S#761  
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UGCR71%Q.WX\$10\_1S M\_<#>X&R\_<#>0A8VE=K6B18H1M12?<#>2 M1G=<#>VY V7-W\*N\*Y1\_<#>V1L&6&S?P<#>M2X1A<#>#>1T1H0\_<#>H71=<#>VXK#>+>#>QV.GMD+1L5L2LCUMV'YMAV>SZ1V:  
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MR^PO.IN(6S?>=OWAR#J9S13?XHS.P<=>@KK1=>@>V5151%7%M.C.7N/O1P7O3)MN)+LK+LH.CW.#PXBUS32Y0U7O@.73.5UVF1IRBUWTF1%>E.A3MR.D%5Z1B  
09W#WJ/+&(MEMA15.1\$M.M=2SP(CKR-92125T?2PNBPMBQ;Q.MZI| MG@IACIGQ|@IN/NOV1WE/CVGM.M\$PGBH7P&#WMB>?=>9SEFIEGAM/XOU@T1T1.P7Y9A\$DD.M  
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M/2L;MS+J.EGB#TWN88V81>L3^?+>@X(CI5&F.M947.O.9B.J2L@G11.H.4H10K0&J8L>=9C18470H@(+K^&M+C0XIQW60^06UT6"PH5H712E1  
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[illegible]

[illegible]

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[illegible]

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G+<@16N?2FADN2?>C2PH1B0D2Z&L\$S,DD40X4DY %> MIMK+OUZ?Y43Y<L3+QO\$>G.6^9D0<0.0@2IV= IUQ#>AD47>A^<?POY,H?G!6!0 MDL<D.GV>Y VXX&E^<013\$Z3<G^A14D#&.0664%>^WVG:F81=5<#(C%IZW" M(C%<3+>2VOB7?SP,KH3 F+<41<+>HBWY^F(\$<^R>Z>JHUI,S1K\$7W1"" M1C&R.ZY10>BBF/TO2R F<+&Y<C<X13>EFT,NXIN?#W7^?0A#B<5E135L,RV2I<DDT9E0Q<0^T5AL M/!BG.A5 M-G:GN-3F?HT9\$ERS?1M> J1^CF#<B-JMD'=::<#>I>>W78 M0C<QX=X-GG8D^YI\$8M-IL"2I4 IW@<R1R8@T\$Q>3<-(OS,.HE?+MWA) MIGHRIW""JH0W<47..S\_90) EVINEV!>1V 57\$Y\$YPPF&R1XFI9?>5X^<F0 M2RR(U?H?1%Z2>+I?P?>9G^U4XAW&E?#U.YN0=>H\$<+?#N?>P<@<25C<# MHG60<E?X^<+<#<6K0^L!D J<P.R.UYHEQ150\$?70A519?>H1W9R&H004F6 M\$5^V1U2X,CV4N(O&KIA4U&A,I&CC<=&5;F6(KI61?3R1+L1GHJB38\$%140 M.Z.N.I&415R#B?T1K1O<##DASFP^<T5.Q\$8? J1B2-6NF0U.M-M.~<6%01=2>6L6\$W5:(A?A&CHIF\$1F.= MLJ10/1G1C\$5="ECL1LFWN-UHR=UW6\$52F#O6&PB0\$SIA!B4<1^OG=>6P M^M@<RGXL1+M2L)TSQ<Q02ZIEFFIRK?C87A.XJ)=R& M/JGMB7.20(ZO?G<0C5HIG\$BKEORHU\$L\$W6\$HJ241-0C143Y>2=DE0EMLHEM<56M4 1>1L) /5T184<0>:Q+>+>3 M~4KM.HG^<U00.1&HVSV)S)K<-.OZOU>>+>+>F+7@A36JL>TW.)^1X^H2J M559/IVB3CU&J0Y(UO9I6F<? 6MJUBN9UA9:ZSBJ=,\$6\$K9.C/0Z6=>+>+>1-0E.M? YH?Z30S.M<3YV1=>#P (F9A4-DZB-D8R4I)M<+9?7 TE.41\$0:7Z. M14^H2%RN28!0)TPR&L&LU5G&N.V\$T5 M0ET4NT YB7B\$0&1 M.M.0@49&@<I4I1UH>V14I02<5+T&TMD2BBZVJH8 MUTI?<+>DG(DJ)AYX^?Q>YIE#H^4N9^EKI3;70B^3-61\$60>..YSV"(C M2C7%RI< 61AC+<4X.<I4>\$.F1M-IF83D6Y52C.I.Y#>+B^B^A9301AIV M4W&C@<A?I@<1^9>=WR2Y0\$S8JRAD2L!OY.<@Z0<C8\$?2F\$G M.<I#<+G M1+>08)8&)%> IE(S<+Q\$<TA3@<Z3C^<1.14J20K\$<^H+>V2.0 MDYD?<1>J D87CWRKRC?<79INLHWZ\$<4>+>Y2P5-TM^O&4AYME1QK#6 M\$624Y4.R51L1#15\$P\$PB#<^<B18A 5!M6%#7J%0<1RDZ=>B>8B)(N.AX#LD MS&B-9EXLF=9:IT^9F?>D700U79J?YXIA5>^87DB1Y^F8I81)-B^R&CFO?I-M^XG>QZ<326?J^JZ.\$^1N^?4A0\$&5H2M: 4&FAKWO?M^<L>1W>?2P<+<X M1X0Y>U#J63VP!BR:KLH6LSCMYN^M=E\$YGM<2>#<H4@<7F 0SIPMDC M2^6H+>6>A^DTE?>M9R? <^75^2^B.FXQO67JCN<^ATH9@<AQC<1A1K MC.<S>2RCL.C%Z4C?YJCEG&.<N-V-OF@<E4305Y^VTOLHX@PS>2@4^ M3R&<BCC1JHEV^QHI <Q9FA&VX+J8ER#ZN^W&4\$S(GNTH7 M3U>+>8UP0CYY^SEVJ=>P36HAJHA76RI(DY6+>SWX+IK1Z=>G8A>T2+8\$ MUFIX4#<L(U#N%\$S2ZO(L=>36H! <U=BY<+H1Q1J0\$K3W6<V1Q+O2NTD>U.MN@5W4N\$X\$M71+H+>1)DFCA%BUVA^FN2C!H=>+>+>1+0^<PO=VJR-W-H965T@FWN.7><+>+>7 M>O&XH@<I)HJ:"G&5BYE=67:(LNP&55^J-T0&^RS5E^H47^"P.JJ.TY M3F0?716\$INU615Y:"T1^<86(\$N^L3^<3^<RI=AR&C=W""5GE4B\_825\$A<#W7.WLEF5!B@>%827B!E!U<Y\$5.M+Q)N!P%LC9%V.F7L44^<+>6HP4! MA4QJHP><Y@<^T9I(R7C= <@6M2@W<+>H.0G0R0L<Y@<R^H^L9^ZV+BYT<5> M4WG MI^A1JOH01871MHZ>^MER92T8^5>H^H41-778 ICLP?Q?7A=M0!P&L!FL00.(3&5?Z8^98XB3G; (JZC%9I<F&921)2)2KWM.IG652J)P.M.OD^JF@<76=>24V0F.J51+1O\$<5^<+>I+OOD<X M08^<Z<O0A?<123W<W&CWMY0&A\$SY>+>+>7L<IY.H2LNOQ%\$T\$<A.XDK4<\$. M0LZ<@<3P\$5CIVS=N^5H^1^<J\$Q.8IEJ&ZV\$=80>^M.HXE5^>FED.R7<I07C04.A.WBZXJ^HXS\$=M9D&P.&H.C8-U?26!L4T.8H+>G+R.LJ^<^<2H1N16!F0C+>42AIZU+6 M-V2IVC<@<+W.NL3U9CKOJ/INH-YBO2^F4Z:6B=>^Y&ZECPN&6\$DJT\$OF M3^L9C.Y^K<K<@<4^R5C004\$#L#10 (&&I/EIG-BREPC^M^H^9>>PO=VJR-W-H965T7CXVZ6UKX<B9LPHL=>?2@<3CM?)<UISD^MY<^<SK9J^>5@<5@<J&R^TKB?^41K^<QDZ\$05PLH<0R3A^<QJDH^F3M0.MR41<1E6B\$1L#?> SMSQ<Q#HSRN66(K4N2R^PKH?J3^<+>J1C3L1YEEF MEC %25=>2A.>+>C943 21^<=>Z4P& 1H M^<NR90I.>^A1.S2?5<MRC4IMLIMJ04K4690.V^DK^ZS=Y:JP X4HHP^X M>+>W(H&C#BGM3)G?TPTR3,IMDC.>FIZXV^FW+4Z XE1+LTH-3N<3<#5H2HPP(M M41P/FW^B31E^1LXV.IWZ4H\$79N N1+Y>D74J\$X& M^O? I419N=GUXD@<QHSW^TMMJ7?>?8<5=>F+L A.GBAV)T.<=>R6DK.ZWYJ^<5^<93 M5HIZGCG<5^7H(KM2>2690D1BEX0KT3T+>XO.<L\$K\$ F.M^BUZYUV<^U+>P04^> IAA<3Y.4#^1 H#<IS M^<0^<AL+W=08W>9+<Q6ZQ<P)I LWX8IH&6SA91BM1(VH1\_8Z4HCJNXJW80DA1N70X M^F= M.A\$F430^1A9D\$1VJW.Y1C19>XJ1^E&ZIKL 14^M9L&VE9.H5^>I?PTE.3&K?M!<B1M!<IM?L>5T7#H0P0<G!K^<H8ZRI.V=B4!90MEC^X<#AV3T@D/2 M.21^F?G@<D>1>+>0.RUHPR>?5COOSIRKQ^<QGN3B?Y=>N^MIEU^?G< MA10#<X%<I9^#?>IA^<F)P\$295HH+>L16%L\$<?0-G<#>0>OWH^KK1+ UN9^>D(F9A)9<@BPZ.AOQFAB9L@<#WINQ<^BD2813CY>+>BO^A^<A1N>8337YIU.TA.XR81#<I&XG<BL3 1/8L&ED2E^P4<G3HJ>QBZ^XVJ.DR.IWIND<3.L I2913K&?> M8.S^X4I45+T0TKN^WUWU1HE?T34I3A5I^DYD\$=>?MOJ!B7.M#<5Y^<0<10MUHN+&Q?KQ?U2^X90&VGACEF7D<+>JL&A+>U^<7R0G>@<RHY2 MV%E%SZW27XZR&H0\_40 9>>PO=VJR-W-H965T.VIHKLD2,D>K<Y.ME5EH<FD K^4LIA M.>+>XLLHNF.20W^ANOJXXTRIROWIKO.H9CE8\$.812IR#J<0!3B&=>2>GX M4R.UYJH7Z<^W#>+>=>JAG0\$4+936F&E M^M^G^V05R5MG725FW>2BH.EF<QEOU>5>JXN3X\$<EY\$A.H?F1+>2JH74Y\$ M0@<YKH<=<H2^? OT1+>S4W1C.Q0&OSQ#42H.885GL75J5L^N\$N&ZNC.MJ@<R3.HX?3^>C3F3LM^L.C9N1=>#K M1D&UBZBH)12PKGX+UB6>F1@J0>7-134\$K=2K?>J@<JMP^X>XJ^<C M.MQ34G<0X0Y.C\$16\$K@9<G C9T UZB-NEI2!QD5U<Q^KDLK<C&EJ7<^1ATM M^<S&SLOO.7W>+>H\$5<J^J^>D1^74H MAH5^HUST535>W^<+>AF3K^HX9U)<0>7/9 (NIZ@OB18DX1-27L M.P.M0 M2P.<#>88\$<5\$>+>P J0D ID XJ^<W.W&K&U5M9J.HY\$AKI&PU84^<G=>Q@M0Y\$J&JNG<00X^<H^63 M190B51YEQ.OU.U^RX<@>U@<I8YNDIYHIG@O^<^<4XYHH/GOFF.1+ESY74<M4Y)C<C6E^CY2V9L1Q0OJ3JFTD)<U^AXF&^/XH+>(74T^8>S19V.3>64U+BT M0\$51^<N.H3+>232(H@6P#>)<6S18@=>B9M^>2^F1/C#C3 M70P04=>K&W07U<L.HKSJ^<22ZB6M^%3%3/9CM.V\$IN?H&5542F.R/8C M2^IRIFB4F4\$A=? TOGLX^<S^<L\$88IMZUH2D MHPRZ?O.E.SGIH^XYA1Y>#26^U2O&DYF@B271^6@<+>#QC9 M&FX4&PM.Z8<Q1^9C^<#>MB^EIQ16.VJ1^? C4H0LQZ<^1JN9Y1+>H1DHI=IPR6AF3H7L^<194)7P01<+>3 MW/SC=>24Y7I2QJH8F8?=>F1\$V18H1<7Z.FYS6G74H.\$<A1PPEB81 M(I)QY9LH2.PRCHLID^AR DM.FU1Z1ZPNYA=>F1H+E#XN@SUYH7<KPG<H.MPZ06U<=>N^<+>S+>I&X2I7H1>ZJ?QO?EP>W&3\$RM+?H&#<GNLU^XKON@P6Q MDHKK^KK60DCX^ DKXLIQ\$0KB1>U+>TJ78=CKI.Y+>B^3^<?<1XA+>R>#?>F M^X%//AX<4B><+>\$/ZUA4K^RI+>KR=>7.SU(A\$H^EQT(0R8)G5^#D@HGGC^ M0\$18^<U4+>GDH6LE@/3 3^>#HDSIH<^F8J7?>2C.5-1L LUO2J0F?>#8G MEJZ^H33M^<4G?T.8=N-&8 Q MRC<@>I6&9U^<K?4>QOYD K^O!MK7V7004\$<L#10 (&&I/EJ^P> >U70L M(ML 9>>PO=VJR-W-H965T7XJHJHC<Y.NR5V1B3>J) MK1+>5YLTZ<6^S.RIM^JH=H^UF3GR\$K2L.NI=3>Q^I24X4IGD7ZDU^ MKI\$<M^B<^>YR1H9V1Z1=? UO5W52>+>C)77HC1V7U^<V7HOXHT1^LUEN9 ME>LHPIY3H1\$SZ&P&H L K5C>2J2SUF\$1.CY7W.>^Y8N1X8B MKHJ8 NYV3L177H86=? H&A1 3^<TVPID^NTE(ALT^UZH0G&3&9I^ M7JWF^<IK OBS<+>4WS+>N4O 6ZP J.VW9950V.U\$6S7V2L1%MKB^<M^<UHO H&Q&P0>30(VP9AWP91VR#668 E)T=1%J&9R<#<N@5#<IF:W18&7/7 MNA1^<FN^<INHJ^<ZKMM59Y?R1OX6^<ISMJH\$S7?Q52IS+>G>K/E-ZP500Q?2H?>#>#61%<9H!% M^<K1.55?>E?E>V^?J9A&^?PN<I^YU6W1 9BM^YSGHF>C/9R5 MW\$W\$R^KGIX<I^X^X) (N<+>0>T% V:\$1=HPL7^<XPIXO+MW(TDNSE7>PU^<T MWBU T""HU745L1^<QMSX1 90H1+>T.3N.<#>E^?75 1+>R00S079R>8Z MHY^A#<BD BD.LUR <Y^OFQSSMC4DFD.@T2R<2R&CEKW\$=>C^<51^T8Y M1#<8<R181L1\_92 PE.COW=>?>S VY71BDH&M&P^BTTWY\$YF#>3WLK9+>+>C ML&D ML-MV+>1D C/F.TMMVQ> #0-WOH<2XTE H7SN=W&4J&4WH=>Y80@<0\$< M1\$59HK01#<=>#<H8C9MW^<Z PL<@2BP3MU@<UO(A M K1L\$<6L=<+>=>G.BH^<+>33+>J1&D@<@%4 4T^0 8M^K00T&2F>^2I28> M0810A<=>W&H1BDG2X7U^0)^< KJH\$6DIM ND9L<@8@U^<I0\$>=>")2)<6>X M^<B^7\$S+W>0.P5U^FHL^<+>33>I2DDGCGX<4KCP>8&91-8+>IYE9XE.CW= M08+8Z=<1@%)\$>#X Y0.D-MT/@H5)URU<<^<@ (KZUC^<MH0+>0>REIX&#X+K&R&7\$M3M\$>3+>2J+P&3+>3H4+DFF726VR/(H2J3U7C8K15E8-Z33>RMJ+AF536^>OZ>96FCOT^<1 MWFHK\$SCTK? 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<http://www.northropgrumman.com/role/EarningsPerShareShareRepurchasesandDividendsonCommonStock> Earnings Per Share, Share Repurchases and Dividends on Common Stock Notes 9 false false R10.htm 9952159 - Disclosure - Accounts Receivable, Net Sheet

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<http://www.northropgrumman.com/role/InventoriedCostsNet> Inventoried Costs, Net Notes 12 false false R13.htm 9952162 - Disclosure - Income Taxes Sheet

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<http://www.northropgrumman.com/role/FairValueofFinancialInstrumentsTables> Fair Value of Financial Instruments (Details 2) Sheet

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change-rate-change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. 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Excludes changes in equity resulting from investments by owners and distributions to owners.", "auth_ref": "r29", "r251", "r253", "r260", "r819", "r837", "r838", "srt-ConsolidationItemsAxis": "xbrlType": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ConsolidationItemsAxis", "presentation": "http://www.northropgrumman.com/role/SegmentInformationIntersegmentSalesandOperatingIncomeDetails6", "http://www.northropgrumman.com/role/SegmentInformationReconciliationtoConsolidatedOperatingIncomeDetails1", "http://www.northropgrumman.com/role/SegmentInformationSalesbyContractTypeDetails3", "http://www.northropgrumman.com/role/SegmentInformationSalesbyCustomerTypeDetails2", "http://www.northropgrumman.com/role/SegmentInformationSalesbyGeographicLocationDetails4", "http://www.northropgrumman.com/role/SegmentInformationSegmentSalesDetails5", "lang": "en-us", "role": "Consolidation Items [Axis]", "label": "Consolidation Items [Axis]", "documentation": "Information by components, eliminations, non-segment corporate-level activity and reconciling items used in consolidating a parent entity and its subsidiaries or its operating segments.", "auth_ref": "r164", "r180", "r206", "r207", "r208", "r209", "r210", "r211", "r212", "r213", "r214", "r272", "r302", "r311", "r326", "r327", "r328", "r329", "r330", "r332", "r333", "r334", "r416", "r417", "r418", "r419", "r421", "r422", "r423", "r424", "r425", "r1013", "r1014", "r1220", "r1221", "r1304", "r1305", "srt-ConsolidationItemsDomain": "xbrlType": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ConsolidationItemsDomain", "presentation": "http://www.northropgrumman.com/role/SegmentInformationIntersegmentSalesandOperatingIncomeDetails6", "http://www.northropgrumman.com/role/SegmentInformationReconciliationtoConsolidatedOperatingIncomeDetails1", "http://www.northropgrumman.com/role/SegmentInformationSalesbyContractTypeDetails3", "http://www.northropgrumman.com/role/SegmentInformationSalesbyCustomerTypeDetails2", "http://www.northropgrumman.com/role/SegmentInformationSalesbyGeographicLocationDetails4", "http://www.northropgrumman.com/role/SegmentInformationSegmentSalesDetails5", "lang": "en-us", "role": "Consolidation Items [Domain]", "label": "Consolidation Items [Domain]", "documentation": "Components, elimination, non-segment corporate-level activity and reconciling items used in consolidating a parent entity and its subsidiaries or its operating segments.", "auth_ref": "r164", "r180", "r206", "r207", "r208", "r209", "r210", "r211", "r212", "r213", "r214", "r272", "r302", "r311", "r326", "r327", "r328", "r329", "r330", "r332", "r333", "r334", "r416", "r417", "r418", "r419", "r421", "r422", "r423", "r424", "r425", "r1013", "r1014", "r1220", "r1221", "r1304", "r1305", "us-gaap-ConsolidationPolicyTextBlock": "xbrlType": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConsolidationPolicyTextBlock", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesPolicies", "lang": "en-us", "role": "Principles of Consolidation", "label": "Consolidation, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy regarding (1) the principles it follows in consolidating or combining the separate financial statements, including the principles followed in determining the inclusion or exclusion of subsidiaries or other entities in the consolidated or combined financial statements and (2) its treatment of interests (for example, common stock, a partnership interest or other means of exerting influence) in other entities, for example consolidation or use of the equity or cost methods of accounting. The accounting policy may also address the accounting treatment for intercompany accounts and transactions, noncontrolling interest, and the income statement treatment in consolidation for issuances of stock by a subsidiary.", "auth_ref": "r74", "r1002", "us-gaap-ContractWithCustomerAssetAndLiabilityTableTextBlock": "xbrlType": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ContractWithCustomerAssetAndLiabilityTableTextBlock", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesTables", "lang": "en-us", "role": "Contract with Customer, Asset and Liability", "label": "Contract with Customer, Contract Asset, Contract Liability, and Receivable [Table Text Block]", "documentation": "Tabular disclosure of receivable, contract asset, and contract liability from contract with customer. Includes, but is not limited to, change in contract asset and contract liability.", "auth_ref": "r1310", "us-gaap-ContractWithCustomerAssetExplanationOfChange": "xbrlType": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ContractWithCustomerAssetExplanationOfChange", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesBacklogandContractAssetsandLiabilitiesDetails6", "lang": "en-us", "role": "Contract with Customer, Asset, Explanation of Change", "label": "Contract with Customer, Asset, Explanation of Change", "documentation": "Explanation of change in right to consideration in exchange for good or service transferred to customer when right is conditioned on something other than passage of time.", "auth_ref": "r473", "us-gaap-ContractWithCustomerAssetNetCurrent": "xbrlType": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ContractWithCustomerAssetNetCurrent", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesBacklogandContractAssetsandLiabilitiesDetails6", "lang": "en-us", "role": "Contract with Customer, Net contract assets", "label": "Contract with Customer, Asset, after Allowance for Credit Loss, Current", "documentation": "Amount, after allowance for credit loss, of right to consideration in exchange for good or service transferred to customer when right is conditioned on something other than passage of time, classified as current.", "auth_ref":
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Percentage of completion is a method of accounting whereby profit on a long-term (construction) contracts is recognized based on reliable estimates as to the degree of completion generally based on contractual relationships (costs incurred to total costs anticipated)." } } } }, "auth\_ref": "r11", "us-gaap\_CorporateDebtSecuritiesMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CorporateDebtSecuritiesMember", "presentation": "http://www.northropgrumman.com/role/RetirementBenefitsCategorizationofPlanAssetsDetails7", "lang": "en-us", "role": "verboseLabel", "Corporate debt", "label": "Corporate Debt Securities [Member]", "documentation": "Debt securities issued by domestic or foreign corporate business, banks and other entities with a promise of repayment." } } } }, "auth\_ref": "r1036", "r1038", "r1051", "r1061", "r1078", "r1426" } } }, "us-gaap\_CorporateMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CorporateMember", "presentation": "http://www.northropgrumman.com/role/SegmentInformationCapitalExpendituresandDepreciationandAmortizationDetails7", "lang": "en-us", "role": "verboseLabel", "Corporate", "label": "Corporate Segment [Member]", "documentation": "Component of an entity that usually provides financial, operational and administrative support and is considered an operating segment. Excludes intersegment elimination and reconciling items." } } } }, "auth\_ref": "r1255" } } }, "us-gaap\_CorporateNonSegmentMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CorporateNonSegmentMember", "presentation": "http://www.northropgrumman.com/role/SegmentInformationReconciliationtoConsolidatedOperatingIncomeDetails1", "lang": "en-us", "role": "terseLabel", "Segment Reporting, Reconciling Item, Corporate Nonsegment [Member]", "label": "Segment Reporting, Reconciling Item, Corporate Nonsegment [Member]", "documentation": "Corporate headquarters or functional department that may not earn revenues or may earn revenues that are only incidental to the activities of the entity and is not considered an operating segment." } } } }, "auth\_ref": "r22", "r327", "r328", "r329", "r330", "r333", "r1258" } } }, "us-gaap\_CostOfGoodsAndServicesSold": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CostOfGoodsAndServicesSold", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/ConsolidatedStatementsOfEarningsandComprehensiveIncome", "lang": "en-us", "role": "terseLabel", "Cost of Goods and Services Sold", "label": "Cost of Goods and Services Sold", "documentation": "The aggregate costs related to goods produced and sold and services rendered by an entity during the reporting period. 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Assumptions include, but are not limited to, interest, mortality, employee turnover, salary, and temporary deviation from substantive plan." } } }, "auth\_ref": { "r495" } }, "us-gaap\_DefinedBenefitPlanActuarialGainLossImmediateRecognitionAsComponentInNetPeriodicBenefitCostCredit": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanActuarialGainLossImmediateRecognitionAsComponentInNetPeriodicBenefitCostCredit", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/ConsolidatedStatementsofEarningsandComprehensiveIncome": { "parentTag": "us-gaap\_IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNoncontrollingInterest", "weight": 1.0, "order": 4.0 } }, "http://www.northropgrumman.com/role/RetirementBenefitsNetPeriodicBenefitCostBenefitDetails1": { "parentTag": "us-gaap\_DefinedBenefitPlanNetPeriodicBenefitCost", "weight": 1.0, "order": 5.0 } }, "presentation": { "http://www.northropgrumman.com/role/ConsolidatedStatementsofEarningsandComprehensiveIncome": { "http://www.northropgrumman.com/role/RetirementBenefitsNetPeriodicBenefitCostBenefitDetails1": { "lang": { "en-us": { "role": { "verboseLabel": "Mark-to-market pension and OPB benefit (expense)", "label": "Defined Benefit Plan, Actuarial Gain (Loss), Immediate Recognition as Component in Net Periodic Benefit (Cost) Credit", "documentation": "Amount of gain (loss), recognized immediately as component of net periodic benefit (cost) credit, for change in value of benefit obligation or plan assets from experience different from that assumed, change in actuarial assumption, or consequence of temporarily deviating from substantive plan. 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Plan includes, but is not limited to, pay-related defined benefit plan." } } }, "auth\_ref": { "r335" } }, "us-gaap\_DefinedBenefitPlanBenefitCostCashBalanceCreditingRateAssumedfornextfiscalyear": { "xbrltype": "percentItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "DefinedBenefitPlanBenefitCostCashBalanceCreditingRateAssumedfornextfiscalyear", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssumptionsDetails5": { "lang": { "en-us": { "role": { "terseLabel": "Initial cash balance crediting rate assumed for the next year", "label": "Defined Benefit Plan, Benefit Cost, Cash Balance Crediting Rate Assumed for next fiscal year", "documentation": "Cash Balance Crediting Rate Assumed for next fiscal year used to calculate benefit cost" } } }, "auth\_ref": { "us-gaap\_DefinedBenefitPlanBenefitCostCashBalanceCreditingRateYearthattherateachestheultimaterate": { "xbrltype": "gYearItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "DefinedBenefitPlanBenefitCostCashBalanceCreditingRateYearthattherateachestheultimaterate", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssumptionsDetails5": { "lang": { "en-us": { "role": { "terseLabel": "Year that the cash balance crediting rate reaches the ultimate rate", "label": "Defined Benefit Plan, Benefit Cost, Cash Balance Crediting Rate, Year that the rate reaches the ultimate rate", "documentation": "Defined Benefit Plan, Cash Balance Crediting Rate, Year that the rate reaches the ultimate rate, used to calculate benefit cost." } } }, "auth\_ref": { "us-gaap\_DefinedBenefitPlanBenefitCostUltimateCashBalanceCreditingRate": { "xbrltype": "percentItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "DefinedBenefitPlanBenefitCostUltimateCashBalanceCreditingRate", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssumptionsDetails5": { "lang": { "en-us": { "role": { "terseLabel": "Rate to which the cash balance crediting rate is assumed to increase (the ultimate rate)", "label": "Defined Benefit Plan, Benefit Cost, Ultimate Cash Balance Crediting Rate", "documentation": "Defined Benefit Plan Ultimate Cash Balance Crediting Rate, used to calculate benefit cost" } } }, "auth\_ref": { "us-gaap\_DefinedBenefitPlanBenefitObligation": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanBenefitObligation", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsFundedStatusofPlanAssetsLiabilitiesDetails3": { "lang": { "en-us": { "role": { "periodStartLabel": "Projected benefit obligation at beginning of year", "periodEndLabel": "Projected benefit obligation at end of year", "label": "Defined Benefit Plan, Benefit Obligation", "documentation": "Amount of actuarial present value of benefits attributed to service rendered by employee for defined benefit plan." } } }, "auth\_ref": { "r490" } }, "us-gaap\_DefinedBenefitPlanBenefitObligationBenefitsPaid": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanBenefitObligationBenefitsPaid", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsFundedStatusofPlanAssetsLiabilitiesDetails3": { "lang": { "en-us": { "role": { "negatedLabel": "Benefits paid",



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For other postretirement plan, payment includes, but is not limited to, prescription drug benefits, health care benefits, life insurance benefits, and legal, educational and advisory services." } } }, "auth\_ref": { "r497", "r560" } }, "noc\_DefinedBenefitPlanBenefitObligationCashBalanceCreditingRateAssumedforNextFiscalYear": { "xbrltype": "percentItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "DefinedBenefitPlanBenefitObligationCashBalanceCreditingRateAssumedforNextFiscalYear", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssumptionsDetails5" } }, "lang": { "en-us" }, { "role": { "terseLabel": "Initial cash balance crediting rate assumed for the next year" }, "label": "Defined Benefit Plan, Benefit Obligation, Cash Balance Crediting Rate Assumed for Next Fiscal Year", "documentation": "Cash Balance Crediting Rate Assumed for Next Fiscal Year used to calculate the benefit obligation." } } }, "auth\_ref": { } }, 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"http://www.northropgrumman.com/role/RetirementBenefitsNetPeriodicBenefitCostBenefitDetails1", "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssetAllocationDetails6", "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssumptionsDetails5", "http://www.northropgrumman.com/role/RetirementBenefitsUnamortizedPriorServiceCreditRollforwardDetails2" } }, "lang": { "en-us" }, { "role": { "verboseLabel": "Defined Benefit Plan Disclosure (Table Amounts)", "terseLabel": "Defined Benefit Plan Disclosure (Table Amounts)", "label": "Defined Benefit Plan Disclosure [Line Items]", "documentation": "Line Items represent financial concepts included in a table. 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Asset includes, but is not limited to, stock, bond, other investment, earning from investment, and contribution by employer and employee." } } }, "auth\_ref": { "r501", "r512", "r514", "r515", "r1036", "r1037", "r1038" } }, "us-gaap\_DefinedBenefitPlanFundedStatusOfPlan": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanFundedStatusOfPlan", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsFundedStatusofPlanAssetsLiabilitiesDetails3" } }, "lang": { "en-us" }, { "role": { "terseLabel": "Funded status", "label": "Defined Benefit Plan, Funded (Unfunded) Status of Plan", "documentation": "Amount of funded (unfunded) status of defined benefit plan, measured as difference between fair value of plan assets and benefit obligation. Includes, but is not limited to, overfunded (underfunded) status." } } }, "auth\_ref": { "r487", "r510", "r1038" } }, "us-gaap\_DefinedBenefitPlanHealthCareCostTrendRateAssumedNextFiscalYear": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanHealthCareCostTrendRateAssumedNextFiscalYear", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssumptionsDetails5" } }, "lang": { "en-us" }, { "role": { "verboseLabel": "Initial health care cost trend rate assumed for the next year", "label": "Defined Benefit Plan, Health Care Cost Trend Rate Assumed, Next Fiscal Year", "documentation": "Assumed rate, for next fiscal year, based on annual change in cost of health care cost benefits used to measure expected cost of benefits covered by defined benefit postretirement plan. Factors include, but

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Excludes factors for change in composition of plan population by age and dependency status." } } }, "auth\_ref": { "r538" } } }, "us-gaap\_DefinedBenefitPlanInformationAboutPlanAssetsAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanInformationAboutPlanAssetsAbstract", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsAmountsinParagraphsRetirementBenefitsDetails9", "http://www.northropgrumman.com/role/RetirementBenefitsCategorizationofPlanAssetsDetails7" } }, "lang": { "en-us": { "role": { "verboseLabel": "Plan Assets by Fair Value Measurement Input (Table Amounts) [Abstract]", "terseLabel": "Information About Plan Assets (Amounts in paragraphs) [Abstract]", "label": "Defined Benefit Plan, Information about Plan Assets [Abstract]" } } }, "auth\_ref": { "r538" } } }, "us-gaap\_DefinedBenefitPlanInterestCost": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": 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For other postretirement plan, payment includes, but is not limited to, prescription drug benefits, health care benefits, life insurance benefits, and legal, educational and advisory services." } } }, "auth\_ref": { "r506", "r1316" } } }, "http://www.northropgrumman.com/20241231", "localname": "DefinedBenefitPlanPlanAssetsContributionsByEmployerVoluntaryContributions", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsAmountsinParagraphsRetirementBenefitsDetails9": { "lang": { "en-us": { "role": { "terseLabel": "Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions", "label": "Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions", "documentation": "Defined Benefit Plan, Plan Assets, Contributions by Employer, Voluntary Contributions" } } }, "auth\_ref": { "r506", "r1316" } } }, "us-gaap\_DefinedBenefitPlanPlanAssetsContributionsByPlanParticipant": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanPlanAssetsContributionsByPlanParticipant", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsFundedStatusofPlanAssetsLiabilitiesDetails3": { "lang": { "en-us": { "role": { "terseLabel": "Participant contributions", "label": "Defined Benefit Plan, Plan Assets, Contributions by Plan Participant", "documentation": "Amount of contributions received by defined benefit plan from participant which increases plan assets." } } }, "auth\_ref": { "r505" } } }, "us-gaap\_DefinedBenefitPlanPlanAssetsTargetAllocationPercentage": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DefinedBenefitPlanPlanAssetsTargetAllocationPercentage", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssetAllocationDetails6": { "lang": { "en-us": { "role": { "terseLabel": "Defined Benefit Plan, Plan Assets, Target Allocation, Percentage", "label": "Defined Benefit Plan, Plan Assets, Target Allocation, Percentage", "documentation": "Percentage of target investment allocation to total plan assets. 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Where multiple classes or units exist define each class/interest by adding class of stock items such as Common Class A [Member], Common Class B [Member] or Partnership Interest [Member] onto the Instrument IDomain of the Entity Listings, Instrument."}}}, "auth\_ref": {"dei\_EntityCurrentReportingStatus": {"xbrltype": "yesNoItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCurrentReportingStatus", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Current Reporting Status", "label": "Entity Current Reporting Status", "documentation": "Indicate 'Yes' or 'No' whether registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. This information should be based on the registrant's current or most recent filing containing the related disclosure."}}}, "auth\_ref": {"dei\_EntityEmergingGrowthCompany": {"xbrltype": "booleanItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityEmergingGrowthCompany", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Emerging Growth Company", "label": "Entity Emerging Growth Company", "documentation": "Indicate if registrant meets the emerging growth company criteria."}}}, "auth\_ref": {"dei\_EntityFileNumber": {"xbrltype": "fileNumberItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityFileNumber", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity File Number", "label": "Entity File Number", "documentation": "Commission file number. The field allows up to 17 characters. 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This information should be based on the registrant's current or most recent filing containing the related disclosure."}}}, "auth\_ref": {"dei\_EntityIncorporationStateCountryCode": {"xbrltype": "edgarStateCountryItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityIncorporationStateCountryCode", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Incorporation, State or Country Code", "label": "Entity Incorporation, State or Country Code", "documentation": "Two-character EDGAR code representing the state or country of incorporation."}}}, "auth\_ref": {"dei\_EntityInteractiveDataCurrent": {"xbrltype": "yesNoItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityInteractiveDataCurrent", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Interactive Data Current", "label": "Entity Interactive Data Current", "documentation": "Boolean flag that is true when the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files)."}}, "auth\_ref": {"dei\_EntityPublicFloat": {"xbrltype": "monetaryItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityPublicFloat", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Public Float", "label": "Entity Public Float", "documentation": "The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter."}}}, "auth\_ref": {"dei\_EntityRegistrantName": {"xbrltype": "normalizedStringItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityRegistrantName", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Registrant Name", "label": "Entity Registrant Name", "documentation": "The exact name of the entity filing the report as specified in its charter, which is required by forms filed with the SEC."}}}, "auth\_ref": {"dei\_EntityShellCompany": {"xbrltype": "booleanItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityShellCompany", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Shell Company", "label": "Entity Shell Company", "documentation": "Boolean flag that is true when the registrant is a shell company as defined in Rule 12b-2 of the Exchange Act."}}}, "auth\_ref": {"dei\_EntitySmallBusiness": {"xbrltype": "booleanItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntitySmallBusiness", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Small Business", "label": "Entity Small Business", "documentation": "Indicates that the company is a Smaller Reporting Company (SRC)."}}, "auth\_ref": {"dei\_EntityTaxIdentificationNumber": {"xbrltype": "taxIdentificationNumberItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityTaxIdentificationNumber", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Tax Identification Number", "label": "Entity Tax Identification Number", "documentation": "The Tax Identification Number (TIN), also known as an Employer Identification Number (EIN), is a unique 9-digit value assigned by the IRS."}}}, "auth\_ref": {"dei\_EntityVoluntaryFilers": {"xbrltype": "yesNoItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityVoluntaryFilers", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Voluntary Filers", "label": "Entity Voluntary Filers", "documentation": "Indicate 'Yes' or 'No' if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act."}}}, "auth\_ref": {"dei\_EntityWellKnownSeasonedIssuer": {"xbrltype": "yesNoItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityWellKnownSeasonedIssuer", "presentation": {"url": "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": {"en-us": {"role": {"terseLabel": "Entity Well-known Seasoned Issuer", "label": "Entity Well-known Seasoned Issuer", "documentation": "Indicate 'Yes' or 'No' if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Is used on Form Type: 10-K, 10-Q, 8-K, 20-F, 6-K, 10-K/A, 10-Q/A, 20-F/A, 6-K/A, N-CSR, N-Q, N-1A."}}}, "auth\_ref": {"us-gaap\_EntityWideRevenueMajorCustomerLineItems": {"xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EntityWideRevenueMajorCustomerLineItems", "presentation": {"url": "http://www.northropgrumman.com/role/SegmentInformationSalesbyCustomerTypeDetails2", "lang": {"en-us": {"role": {"terseLabel": "Revenue, Major Customer [Line Items]", "label": "Revenue, Major Customer [Line Items]", "documentation": "Line items represent financial concepts included in a table. 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This accounting policy may address (1) whether the related remediation costs are expensed or capitalized, (2) whether the obligation is measured on a discounted basis, (3) the event, situation, or set of circumstances that generally triggers recognition of loss contingencies arising from the entity's environmental remediation-related obligations, and (4) the timing of recognition of any recoveries."}}}, "auth\_ref": {"us-gaap\_EnvironmentalCostsRecognizedRecoveryCreditedToExpense": {"xbrltype": "monetaryItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EnvironmentalCostsRecognizedRecoveryCreditedToExpense", "presentation": {"url": "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "lang": {"en-us": {"role": {"terseLabel": "Environmental Remediation Expense, Recovery", "label": "Environmental Remediation Expense, Recovery", "documentation": "Amount of expense recovery for known and estimated future costs arising from requirement to perform environmental remediation."}}}, "auth\_ref": {"us-gaap\_EnvironmentalRemediationTableTextBlock": {"xbrltype": "textBlockItem", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "EnvironmentalRemediationTableTextBlock", "presentation": {"url": "http://www.northropgrumman.com/role/CommitmentsandContingenciesTables", "lang": {"en-us": {"role": {"terseLabel": "Environmental Remediation [Table Text Block]", "label": "Environmental Remediation [Table Text Block]", "documentation": "Environmental Remediation Range of Possible Future Costs, Accrued Costs within that range and Deferred Cost expected to be recovered [Table Text Block]"}, "auth\_ref": {"us-gaap\_EquityAwardsAdjFnTextBlock": {"xbrltype": "textBlockItem", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EquityAwardsAdjFnTextBlock", "presentation": {"url": "http://xbrl.sec.gov/ecd/2024", "lang": {"en-us": {"role": {"terseLabel": "Equity Awards Adjustments, Footnote", "label": "Equity Awards Adjustments, Footnote [Text Block]"}, "auth\_ref": {"us-gaap\_EquityAwardsAdjExclgValRprtInSummryCompstnTblMember": {"xbrltype": "domainItem", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EquityAwardsAdjExclgValRprtInSummryCompstnTblMember", "presentation": {"url": "http://xbrl.sec.gov/ecd/role/PvpDisclosure", "lang": {"en-us": {"role": {"terseLabel": "Equity Awards Adjustments, Excluding Value Reported in Compensation Table", "label": "Equity Awards Adjustments, Excluding Value Reported in the Compensation Table [Member]"}, "auth\_ref": {"us-gaap\_EquityAwardsAdjMbr": {"xbrltype": "domainItem", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EquityAwardsAdjMbr", "presentation": {"url": "http://xbrl.sec.gov/ecd/role/PvpDisclosure", "lang": {"en-us": {"role": {"terseLabel": "Equity Awards Adjustments [Member]", "label": "Equity Awards Adjustments [Member]", "documentation": "Components of equity are the parts of the total Equity balance including that which is allocated to common, preferred, treasury stock, retained earnings, etc."}}}, "auth\_ref": {"us-gaap\_EquityAbstract": {"xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EquityAbstract", "presentation": {"url": "http://xbrl.sec.gov/ecd/2024", "lang": {"en-us": {"role": {"terseLabel": "Equity [Abstract]", "label": "Equity [Abstract]", "documentation": "Line items represent financial concepts included in a table. 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These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table."}}}, "auth\_ref": {"us-gaap\_EquityComponentDomain": {"xbrltype": "domainItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EquityComponentDomain", "presentation": {"url": "http://www.northropgrumman.com/role/ConsolidatedStatementsofChangesInShareholdersEquity", "lang": {"en-us": {"role": {"terseLabel": "Equity Component [Domain]", "label": "Equity Component [Domain]", "documentation": "Components of equity are the parts of the total Equity balance including that which is allocated to common, preferred, treasury stock, retained earnings, etc."}}}, "auth\_ref": {"us-gaap\_EquitySecuritiesMember": {"xbrltype": "domainItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EquitySecuritiesMember", "presentation": {"url": "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssetAllocationDetails6", "lang": {"en-us": {"role": {"terseLabel": "Global public equities", "label": "Equity Securities [Member]", "documentation": "Ownership interest or right to acquire or dispose of ownership interest in corporations and other legal entities for which ownership interest is represented by shares of common or preferred stock, convertible securities, stock rights, or stock warrants."}}}, "auth\_ref": {"us-gaap\_EquityValuationAssumptionDifferenceFnTextBlock": {"xbrltype": "textBlockItem", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EquityValuationAssumptionDifferenceFnTextBlock", "presentation": {"url": "http://xbrl.sec.gov/ecd/role/PvpDisclosure", "lang": {"en-us": {"role": {"terseLabel": "Equity Valuation Assumption Difference, Footnote", "label": "Equity Valuation Assumption Difference, Footnote [Text Block]"}, "auth\_ref": {"us-gaap\_ErrCompAnalysisTextBlock": {"xbrltype": "textBlockItem", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "ErrCompAnalysisTextBlock", "presentation": {"url": "http://xbrl.sec.gov/ecd/role/ErrCompDisclosure", "lang": {"en-us": {"role": {"terseLabel": "Erroneous Compensation Analysis", "label": "Erroneous Compensation Analysis [Text Block]"}, "auth\_ref": {"us-gaap\_ErrCompRecoveryTable": {"xbrltype": "stringItem", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "ErrCompRecoveryTable", "presentation": {"url": "http://xbrl.sec.gov/ecd/role/ErrCompDisclosure", "lang": {"en-us": {"role": {"

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Such disclosures about the financial instruments, assets, and liabilities would include: (1) the fair value of the required items together with their carrying amounts (as appropriate); (2) for items for which it is not practicable to estimate fair value, disclosure would include: (a) information pertinent to estimating fair value (including, carrying amount, effective interest rate, and maturity, and (b) the reasons why it is not practicable to estimate fair value; (3) significant concentrations of credit risk including: (a) information about the activity, region, or economic characteristics identifying a concentration, (b) the maximum amount of loss the entity is exposed to based on the gross fair value of the related item, (c) policy for requiring collateral or other security and information as to accessing such collateral or security, and (d) the nature and brief description of such collateral or security; (4) quantitative information about market risks and how such risks are managed; (5) for items measured on both a recurring and nonrecurring basis information regarding the inputs used to develop the fair value measurement; and (6) for items presented in the financial statement for which fair value measurement is elected: (a) information necessary to understand the reasons for the election, (b) discussion of the effect of fair value changes on earnings, (c) a description of [similar groups] items for which the election is made and the relation thereof to the balance sheet, the aggregate carrying value of items included in the balance sheet that are not eligible for the election; (7) all other required (as defined) and desired information", "auth\_ref": "r710", "r714", "r712", "r713", "r715", "r717", "r718", "r719", "r720", "r816", "r1051", "r1055", "us-gaap\_FairValueInputsLevel1Member": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueInputsLevel1Member", "presentation": "http://www.northropgrumman.com/role/FairValueofFinancialInstrumentsDetails1", "lang": "en-us", "role": "terseLabel", "Fair Value, Inputs, Level 1 [Member]", "label": "Fair Value, Inputs, Level 1 [Member]", "documentation": "Quoted prices in active markets for identical assets or liabilities that the reporting entity can access at the measurement date", "auth\_ref": "r441", "r514", "r519", "r706", "r714", "r771", "r1036", "r1037", "r1038", "r1051", "us-gaap\_FairValueInputsLevel2Member": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueInputsLevel2Member", "presentation": "http://www.northropgrumman.com/role/FairValueofFinancialInstrumentsDetails1", "lang": "en-us", "role": "terseLabel", "Fair Value, Inputs, Level 2 [Member]", "label": "Fair Value, Inputs, Level 2 [Member]", "documentation": "Inputs other than quoted prices included within level 1 that are observable for an asset or liability, either directly or indirectly, including, but not limited to, quoted prices for similar assets or liabilities in active markets, or quoted prices for identical or similar assets or liabilities in inactive markets", "auth\_ref": "r441", "r514", "r519", "r706", "r707", "r714", "r772", "r1027", "r1028", "r1036", "r1037", "r1038", "r1051", "us-gaap\_FairValueInputsLevel3Member": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueInputsLevel3Member", "presentation": "http://www.northropgrumman.com/role/FairValueofFinancialInstrumentsDetails1", "lang": "en-us", "role": "terseLabel", "Fair Value, Inputs, Level 3 [Member]", "label": "Fair Value, Inputs, Level 3 [Member]", "documentation": "Unobservable inputs that reflect the entity's own assumption about the assumptions market participants would use in pricing", "auth\_ref": "r441", "r514", "r515", "r516", "r517", "r518", "r519", "r706", "r707", "r708", "r709", "r714", "r773", "r1027", "r1028", "r1036", "r1037", "r1038", "r1051", "r1054", "us-gaap\_FairValueInvestmentsEntitiesThatCalculateNetAssetValuePerShareInvestmentRedemptionFrequency": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueInvestmentsEntitiesThatCalculateNetAssetValuePerShareInvestmentRedemptionFrequency", "presentation": "http://www.northropgrumman.com/role/RetirementBenefitsAmountsinParagraphsRetirementBenefitsDetails9", "lang": "en-us", "role": "terseLabel", "Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Frequency", "label": "Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Frequency", "documentation": "States the frequency (for example, annually, semi-annually, quarterly) with which the entity can redeem its investment, or portion thereof, for each of those certain investments for which net asset value per share is calculated (including by unit, membership interest, or other equity (ownership interest) unit measure) (alternative investments), by major category", "auth\_ref": "r1050", "r1055", "us-gaap\_FairValueInvestmentsEntitiesThatCalculateNetAssetValuePerShareInvestmentRedemptionNoticePeriod": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueInvestmentsEntitiesThatCalculateNetAssetValuePerShareInvestmentRedemptionNoticePeriod", "presentation": "http://www.northropgrumman.com/role/RetirementBenefitsAmountsinParagraphsRetirementBenefitsDetails9", "lang": "en-us", "role": "terseLabel", "Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period", "label": "Fair Value, Investments, Entities that Calculate Net Asset Value Per Share, Investment Redemption, Notice Period", "documentation": "Notice period the entity is required to deliver before it can redeem an investment calculated using net asset value per share, in 'PnYnMnDnInHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. 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Includes, but is not limited to, current and deferred national tax expense (benefit) for non-US (United States of America) jurisdiction." } } }, "auth\_ref": { "r269", "r619", "r620" } } }, "us-gaap\_FiniteLivedIntangibleAssetsAccumulatedAmortization": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FiniteLivedIntangibleAssetsAccumulatedAmortization", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsOtherPurchasedIntangibleAssetsDetails2": { "parentTag": "us-gaap\_FiniteLivedIntangibleAssetsNet", "weight": -1.0, "order": 1.0 } }, "presentation": { "negatedTerseLabel": "Less accumulated amortization", "label": "Finite-Lived Intangible Assets, Accumulated Amortization", "documentation": "Accumulated amount of amortization of assets, excluding financial assets and goodwill, lacking physical substance with a finite life." } } }, "auth\_ref": { "r231", "r364", "r383", "r1022" } }, "us-gaap\_FiniteLivedIntangibleAssetsAmortizationExpenseNextTwelveMonths": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FiniteLivedIntangibleAssetsAmortizationExpenseNextTwelveMonths", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsFutureAmortizationofPurchasedIntangiblesDetails3": { "lang": { "en-us": { "role": { "terseLabel": "2025", "label": "Finite-Lived Intangible Asset, Expected Amortization, Year One", "documentation": "Amount of amortization for assets, excluding financial assets and goodwill, lacking physical substance with finite life expected to be recognized in next fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r385", "r992", "r1022" } } }, "us-gaap\_FiniteLivedIntangibleAssetsAmortizationExpenseYearFive": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FiniteLivedIntangibleAssetsAmortizationExpenseYearFive", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsFutureAmortizationofPurchasedIntangiblesDetails3": { "lang": { "en-us": { "role": { "terseLabel": "2029", "label": "Finite-Lived Intangible Asset, Expected Amortization, Year Five", "documentation": "Amount of amortization for assets, excluding financial assets and goodwill, lacking physical substance with finite life expected to be recognized in fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r385", "r992", "r1022" } } }, "us-gaap\_FiniteLivedIntangibleAssetsAmortizationExpenseYearFour": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FiniteLivedIntangibleAssetsAmortizationExpenseYearFour", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsFutureAmortizationofPurchasedIntangiblesDetails3": { "lang": { "en-us": { "role": { "terseLabel": "2028", "label": "Finite-Lived Intangible Asset, Expected Amortization, Year Four", "documentation": "Amount of amortization for assets, excluding financial assets and goodwill, lacking physical substance with finite life expected to be recognized in fourth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r385", "r992", "r1022" } } }, "us-gaap\_FiniteLivedIntangibleAssetsAmortizationExpenseYearThree": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FiniteLivedIntangibleAssetsAmortizationExpenseYearThree", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsFutureAmortizationofPurchasedIntangiblesDetails3": { "lang": { "en-us": { "role": { "terseLabel": "2027", "label": "Finite-Lived Intangible Asset, Expected Amortization, Year Three", "documentation": "Amount of amortization for assets, excluding financial assets and goodwill, lacking physical substance with finite life expected to be recognized in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r385", "r992", "r1022" } } }, "us-gaap\_FiniteLivedIntangibleAssetsAmortizationExpenseYearTwo": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FiniteLivedIntangibleAssetsAmortizationExpenseYearTwo", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsFutureAmortizationofPurchasedIntangiblesDetails3": { "lang": { "en-us": { "role": { "terseLabel": "2026", "label": "Finite-Lived Intangible Asset, Expected Amortization, Year Two", "documentation": "Amount of amortization for assets, excluding financial assets and goodwill, lacking physical substance with finite life expected to be recognized in second fiscal year following current fiscal year. 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Also called income tax refund receivable." } } }, "auth\_ref": { "r1228" } }, "noc\_IncomeTaxReconciliationDeductionsITServicesDivestitureGoodwill": { "xbrltype": "monetaryItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "IncomeTaxReconciliationDeductionsITServicesDivestitureGoodwill", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/AmountsinParagraphsIncomeTaxesDetails5": { "http://www.northropgrumman.com/role/IncomeTaxesEffectiveIncomeTaxRateReconciliationDetails2": { "lang": { "en-us": { "role": { "terseLabel": "IT services divestiture nondeductible goodwill", "label": "IncomeTaxReconciliationDeductionsITServicesDivestitureGoodwill", "documentation": "Amount of the difference between reported income tax expense (benefit) and expected income tax expense (benefit) computed by applying the domestic federal statutory income tax rates to pretax income (loss) from continuing operations attributable to IT services divestiture 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included in inventory and how cost is determined (such as FIFO, LIFO, average). Elements of costs in inventory may include retained costs representing the excess of  
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Term of Contract", "documentation": "Term of lessee's operating lease not yet commenced, in 'PnYnMnDnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days." } } }, "auth\_ref": "r1380" } } }, "noc\_LesseeOperatingLeaseNotyetCommencedValue": { "xbrltype": "monetaryItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "LesseeOperatingLeaseNotyetCommencedValue", "crdr": "debit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Lease Not yet Commenced, Value", "label": "Lessee, Operating Lease, Lease Not yet Commenced, Value", "documentation": "Lessee, Operating Lease, Lease Not yet Commenced, Value" } } }, "auth\_ref": { "r1382" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDue", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Payments, Due", "label": "Lessee, Operating Lease, Liability, to be Paid", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDueAfterYearFive": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueAfterYearFive", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Payments, Due after Year Five", "label": "Lessee, Operating Lease, Liability, to be Paid, after Year Five", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease due after fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDueNextTwelveMonths": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueNextTwelveMonths", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Payments, Due Next Year", "label": "Lessee, Operating Lease, Liability, to be Paid, Year One", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in next fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDueYearFive": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearFive", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Payments, Due Year Five", "label": "Lessee, Operating Lease, Liability, to be Paid, Year Five", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDueYearFour": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearFour", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Payments, Due Year Four", "label": "Lessee, Operating Lease, Liability, to be Paid, Year Four", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in fourth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDueYearThree": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearThree", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Payments, Due Year Three", "label": "Lessee, Operating Lease, Liability, to be Paid, Year Three", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDueYearTwo": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearTwo", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Payments, Due Year Two", "label": "Lessee, Operating Lease, Liability, to be Paid, Year Two", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in second fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeaseLiabilityUndiscountedExcessAmount": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityUndiscountedExcessAmount", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Lease, Liability, Undiscounted Excess Amount", "label": "Lessee, Operating Lease, Liability, Undiscounted Excess Amount", "documentation": "Amount of lessee's undiscounted obligation for lease payments in excess of discounted obligation for lease payments for operating lease." } } }, "auth\_ref": { "r755" } } }, "us-gaap\_LesseeOperatingLeasesTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeasesTextBlock", "presentation": { "http://www.northropgrumman.com/role/Leases", "lang": { "en-us": { "role": { "terseLabel": "Lessee, Operating Leases [Text Block]", "label": "Lessee, Operating Leases [Text Block]", "documentation": "The entire disclosure for operating leases of lessee. Includes, but is not limited to, description of operating lease and maturity analysis of operating lease liability." } } }, "auth\_ref": { "r741" } } }, "us-gaap\_Liabilities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "Liabilities", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/ConsolidatedStatementsOfFinancialPosition", "parentTag": "us-gaap\_LiabilitiesAndStockholdersEquity", "weight": 1.0, "order": 1.0 } }, "presentation": { "http://www.northropgrumman.com/role/ConsolidatedStatementsOfFinancialPosition", "lang": { "en-us": { "role": { "totalLabel": "Total liabilities", "label": "Liabilities", "documentation": "Amount of liability recognized for present obligation requiring transfer or otherwise providing economic benefit to others." } } }, "auth\_ref": { "r25", "r90", "r94", "r92", "r95", "r96", "r97", "r100", "r268", "r346", "r416", "r417", "r419", "r420", "r421", "r422", "r423", "r425", "r426", "r676", 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life expectancy for each of the first five succeeding years from the date of the statement of financial position and thereafter, as well as in the aggregate: (a) the number of life settlement contracts, (b) the carrying value of the life settlement contracts, and (c) the face value (death benefits) of the life insurance policies underlying the contracts, (d) the life insurance premiums anticipated to be paid for each of the five succeeding fiscal years to keep the life settlement contracts in force as of the date of the most recent statement of financial position presented, (e) the nature of the information that causes the Entity to change its expectations on the timing of the realization of proceeds from the investments in life settlement contracts and the related effect on the timing of the realization of proceeds from the life settlement contracts and for (2) life settlement contracts accounted for under the fair value method, disclosure would include, based on remaining life expectancy for each of the first five succeeding years from the date of the statement of financial position and thereafter, as well as in the aggregate: (a) the number of life settlement contracts, (b) the carrying value of the life settlement contracts, (c) the face value (death benefits) of the life insurance policies underlying the contracts, (d) the reasons for changes in the Entity's expectation of the timing of the realization of the investments in life settlement contracts, and (e) (i) the gains or losses recognized during the period on investments sold during the period and (ii) the unrealized gains or losses recognized during the period on investments that are still held at the date of the statement of financial position." } } }, "auth\_ref": { "r347", "r348", "r349", "r350" } } }, "us-gaap\_LineOfCredit": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LineOfCredit", "crdr": "credit", "presentation": { 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Examples of items that might be included in the application of this element may consist of letters of credit, standby letters of credit, and revolving credit arrangements, under which borrowings can be made up to a maximum amount as of any point in time conditional on satisfaction of specified terms before, as of and after the date of drawdowns on the line. Includes short-term obligations that would normally be classified as current liabilities but for which (a) postbalance sheet date issuance of a long term obligation to refinance the short term obligation on a long term basis, or (b) the enterprise has entered into a financing agreement that clearly permits the enterprise to refinance the short-term obligation on a long term basis and the following conditions are met (1) the agreement does not expire within 1 year and is not cancelable by the lender except for violation of an objectively determinable provision, (2) no violation exists at the BS date, and (3) the lender has entered into the financing agreement is expected to be financially capable of honoring the agreement." } } }, "auth\_ref": { "r25", "r157", "r1396" } } }, "us-gaap\_LineOfCreditFacilityCovenantCompliance": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LineOfCreditFacilityCovenantCompliance", "presentation": { "http://www.northropgrumman.com/role/AmountsInParagraphsDebtDetails3", "lang": { "en-us": { "role": { "terseLabel": "Line of Credit Facility, Covenant Compliance", "label": "Line of Credit Facility, Covenant Compliance", "documentation": "Identification of whether the entity has been in compliance with any credit facility debt covenants during the period." } } }, "auth\_ref": { "r1225", "r1227" } } }, "us-gaap\_LineOfCreditFacilityCovenantTerms": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LineOfCreditFacilityCovenantTerms", "presentation": { "http://www.northropgrumman.com/role/AmountsInParagraphsDebtDetails3", "lang": { "en-us": { "role": { "terseLabel": "Credit Facility, Covenant Terms, Maximum Debt to Capitalization Ratio", "label": "Line of Credit Facility, Covenant Terms", "documentation": "Description of the conditions for borrowing under the credit facility including the nature of any restrictions." } } }, "auth\_ref": { "r89", "r94" } } }, "us-gaap\_LineOfCreditFacilityMaximumBorrowingCapacity": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LineOfCreditFacilityMaximumBorrowingCapacity", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/AmountsInParagraphsDebtDetails3", "lang": { "en-us": { "role": { "terseLabel": "Line of Credit Facility, Maximum Borrowing Capacity", "label": "Line of Credit Facility, Maximum Borrowing Capacity", "documentation": "Maximum borrowing capacity under the credit facility without consideration of any current restrictions on the amount that could be borrowed or the amounts currently outstanding under the facility." } } }, "auth\_ref": { "r89", "r94" } } }, "srt\_LitigationCaseAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "LitigationCaseAxis", "presentation": { "http://www.northropgrumman.com/role/InvestigationsClaimsAndLitigationInvestigationsClaimsAndLitigationDetails1", "lang": { "en-us": { "role": { "terseLabel": "Litigation Case [Axis]", "label": "Litigation Case [Axis]", "documentation": "Information by type of judicial proceeding, alternative dispute resolution or claim." } } }, "auth\_ref": { "r157", "r1396" } } }, "srt\_LitigationCaseTypeDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "LitigationCaseTypeDomain", "presentation": { "http://www.northropgrumman.com/role/InvestigationsClaimsAndLitigationInvestigationsClaimsAndLitigationDetails1", "lang": { "en-us": { "role": { "terseLabel": "Litigation Case Type Domain", "label": "Litigation Case Type Domain", "documentation": "Information by type of judicial proceeding, alternative dispute resolution or claim." } } }, "auth\_ref": { "r157", "r1396" } } }



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Examples include, but are not limited to, trade accounts receivables, notes receivables, loans receivables. Includes disclosure for allowance for credit losses." } } }, "auth\_ref": { "r736", "r1262" } }, "dei\_LocalPhoneNumber": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "LocalPhoneNumber", "presentation": { "http://www.northropgrumman.com/role/DocumentandEntityInformation", "lang": { "en-us": { "role": { "terseLabel": "Local Phone Number", "label": "Local Phone Number", "documentation": "Local phone number for entity." } } }, "auth\_ref": { "us-gaap\_LongTermDebt": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebt", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2": { "parentTag": null, "weight": null, "order": null, "root": true } }, "presentation": { "http://www.northropgrumman.com/role/DebtFixedrateNotesandOtherDetails1", "lang": { "en-us": { "role": { "terseLabel": "Long-term debt", "totalLabel": "Total long-term debt", "label": "Long-Term Debt", "documentation": "Amount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt. Excludes lease obligation." } } }, "auth\_ref": { "r25", "r157", "r440", "r455", "r1027", "r1028", "r1059", "r1396" } }, "us-gaap\_LongTermDebtAndCapitalLeaseObligations": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtAndCapitalLeaseObligations", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtFixedrateNotesandOtherDetails1": { "parentTag": "us-gaap\_DebtAndCapitalLeaseObligations", "weight": 1.0, "order": 1.0 } }, "presentation": { "http://www.northropgrumman.com/role/DebtFixedrateNotesandOtherDetails1", "lang": { "en-us": { "role": { "terseLabel": "Long-term Debt and Lease Obligation", "label": "Long-Term Debt and Lease Obligation", "documentation": "Amount of long-term debt and lease obligation, classified as noncurrent." } } }, "auth\_ref": { "r25", "r824" } }, "us-gaap\_LongTermDebtCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtCurrent", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtFixedrateNotesandOtherDetails1": { "parentTag": "us-gaap\_DebtAndCapitalLeaseObligations", "weight": 1.0, "order": 2.0 } }, "presentation": { "http://www.northropgrumman.com/role/ConsolidatedStatementsOfFinancialPositionParentheticals", "http://www.northropgrumman.com/role/DebtFixedrateNotesandOtherDetails1", "lang": { "en-us": { "role": { "terseLabel": "Long-term Debt, Current Maturities", "verboseLabel": "Less: current portion", "label": "Long-Term Debt, Current Maturities", "documentation": "Amount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as current. Excludes lease obligation." } } }, "auth\_ref": { "r234" } }, "us-gaap\_LongTermDebtFairValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtFairValue", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/AmountsinParagraphsDebtDetails3", "lang": { "en-us": { "role": { "terseLabel": "Long-term Debt, Fair Value", "label": "Long-Term Debt, Fair Value", "documentation": "The fair value amount of long-term debt whether such amount is presented as a separate caption or as a parenthetical disclosure. Additionally, this element may be used in connection with the fair value disclosures required in the footnote disclosures to the financial statements. The element may be used in both the balance sheet and disclosure in the same submission." } } }, "auth\_ref": { "r1359", "r1361", "r1362", "r1363" } }, "us-gaap\_LongTermDebtMaturitiesRepaymentsOfPrincipalAfterYearFive": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalAfterYearFive", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2": { "parentTag": "us-gaap\_DebtInstrumentCarryingAmount", "weight": 1.0, "order": 6.0 } }, "presentation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2", "lang": { "en-us": { "role": { "terseLabel": "Thereafter", "label": "Long-Term Debt, Maturity, after Year Five", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing after fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r13", "r272", "r1308" } }, "us-gaap\_LongTermDebtMaturitiesRepaymentsOfPrincipalInNextTwelveMonths": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalInNextTwelveMonths", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2": { "parentTag": "us-gaap\_DebtInstrumentCarryingAmount", "weight": 1.0, "order": 1.0 } }, "presentation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2", "lang": { "en-us": { "role": { "terseLabel": "2025", "label": "Long-Term Debt, Maturity, Year One", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in next fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r13", "r272", "r445" } }, "us-gaap\_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearFive": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalInYearFive", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2": { "parentTag": "us-gaap\_DebtInstrumentCarryingAmount", "weight": 1.0, "order": 5.0 } }, "presentation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2", "lang": { "en-us": { "role": { "terseLabel": "2029", "label": "Long-Term Debt, Maturity, Year Five", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r13", "r272", "r445" } }, "us-gaap\_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearFour": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalInYearFour", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2": { "parentTag": "us-gaap\_DebtInstrumentCarryingAmount", "weight": 1.0, "order": 4.0 } }, "presentation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2", "lang": { "en-us": { "role": { "terseLabel": "2028", "label": "Long-Term Debt, Maturity, Year Four", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in fourth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r13", "r272", "r445" } }, "us-gaap\_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearThree": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalInYearThree", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2": { "parentTag": "us-gaap\_DebtInstrumentCarryingAmount", "weight": 1.0, "order": 3.0 } }, "presentation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2", "lang": { "en-us": { "role": { "terseLabel": "2027", "label": "Long-Term Debt, Maturity, Year Three", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r13", "r272", "r445" } }, "us-gaap\_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearTwo": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalInYearTwo", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2": { "parentTag": "us-gaap\_DebtInstrumentCarryingAmount", "weight": 1.0, "order": 2.0 } }, "presentation": { "http://www.northropgrumman.com/role/DebtMaturitiesOfLongtermDebtDetails2", "lang": { "en-us": { "role": { "terseLabel": "2026", "label": "Long-Term Debt, Maturity, Year Two", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in second fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth\_ref": { "r13", "r272", "r445" } }, "us-gaap\_LongTermDebtNoncurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtNoncurrent", "crdr": "credit", "calculation": { "http://www.northropgrumman.com/role/ConsolidatedStatementsOfFinancialPosition": { "parentTag": "us-gaap\_Liabilities", "weight": 1.0, "order": 2.0 } }, "presentation": { "http://www.northropgrumman.com/role/ConsolidatedStatementsOfFinancialPosition": { "parentTag": "us-gaap\_Liabilities", "weight": 1.0, "order": 2.0 } }, "lang": { "en-us": { "role": { "terseLabel": "Long-term debt, net of current portion of \$1,582 for 2024 and \$70 for 2023", "label": "Long-Term Debt, Excluding Current Maturities", "documentation": "Amount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as noncurrent. Excludes lease obligation." } } }, "auth\_ref": { "r235" } }, "us-gaap\_LongtermDebtTypeAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongtermDebtTypeAxis", "presentation": { "http://www.northropgrumman.com/role/AmountsinParagraphsDebtDetails3", "http://www.northropgrumman.com/role/DebtFixedrateNotesandOtherDetails1", "lang": { "en-us": { "role": { "terseLabel": "Long-term Debt, Type {Domain}", "label": "Long-Term Debt, Type {Domain}", "documentation": "Type of long-term debt arrangement, such as notes, line of credit, commercial paper, asset-based financing, project financing, letter of credit financing. These are debt arrangements that originally required repayment more than twelve months after issuance or greater than the normal operating cycle of the company, if longer." } } }, "auth\_ref": { "r25", "r56", "r1289", "r1290", "r1291" } }, "us-gaap\_LossContingenciesByNatureOfContingencyAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingenciesByNatureOfContingencyAxis", "presentation": { "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": { "en-us": { "role": { "terseLabel": "Loss Contingency Nature {Axis}", "label": "Loss Contingency Nature {Axis}", "documentation": "Information by type of existing condition, situation, or set of circumstances involving uncertainty as to possible loss to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur." } } }, "auth\_ref": { "r406", "r407", "r408", "r413", "r610", "r874", "r1025", "r1296", "r1298" } }, "us-gaap\_LossContingenciesLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingenciesLineItems", "presentation": { "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": { "en-us": { "role": { "terseLabel": "Loss Contingencies [Line Items]", "label": "Loss Contingencies [Line Items]", "documentation": "Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth\_ref": { "r406", "r407", "r408", "r413", "r610", "r1025", "r1296", "r1298" } }, "us-gaap\_LossContingenciesTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingenciesTable", "presentation": { "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": { "en-us": { "role": { "terseLabel": "Loss Contingencies {Table}", "label": "Loss Contingencies {Table}", "documentation": "Disclosure of information about loss contingency. Excludes environmental contingency, warranty, and unconditional purchase obligation." } } }, "auth\_ref": { "r406", "r407", "r408", "r413", "r610", "r1025", "r1296", "r1298" } }, "us-gaap\_LossContingencyAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyAbstract", "presentation": { "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "lang": { "en-us": { "role": { "verboseLabel": "Environmental Commitments and Contingencies (Amounts in Paragraphs)", "label": "Loss Contingency Abstract", "documentation": "Loss Contingency Accrual At Carrying Value", "crdr": "credit", "presentation": { "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesContractEstimatesDetails5", "lang": { "en-us": { "role": { "terseLabel": "Loss

Contingency Accrual", "label": "Loss Contingency Accrual", "documentation": "Amount of loss contingency liability.", "auth\_ref": "r406", "r1211", "us-gaap\_LossContingencyAccrualCarryingValueCurrent", "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyAccrualCarryingValueCurrent", "crdr": "credit", "presentation": "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesContractEstimatesDetails5", "lang": "en-us", "role": "terseLabel", "Loss Contingency, Accrual, Current", "label": "Loss Contingency, Accrual, Current", "documentation": "Amount of loss contingency liability expected to be resolved within one year or the normal operating cycle, if longer.", "auth\_ref": "r406", "us-gaap\_LossContingencyDamagesAwardedValue", "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyDamagesAwardedValue", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": "en-us", "role": "terseLabel", "Loss Contingency, Damages Awarded, Value", "label": "Loss Contingency, Damages Awarded, Value", "documentation": "Amount of damages awarded to the plaintiff in the legal matter.", "auth\_ref": "r1295", "r1296", "r1298", "us-gaap\_LossContingencyDamagesSoughtValue", "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyDamagesSoughtValue", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": "en-us", "role": "terseLabel", "Loss Contingency, Damages Sought, Value", "label": "Loss Contingency, Damages Sought, Value", "documentation": "The value (monetary amount) of the award the plaintiff seeks in the legal matter.", "auth\_ref": "r1295", "r1296", "r1298", "us-gaap\_LossContingencyEstimateOfPossibleLoss", "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyEstimateOfPossibleLoss", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": "en-us", "role": "terseLabel", "Loss Contingency, Estimate of Possible Loss", "label": "Loss Contingency, Estimate of Possible Loss", "documentation": "Reflects the estimated amount of loss from the specified contingency as of the balance sheet date.", "auth\_ref": "r407", "r408", "r412", "r413", "r610", "r1025", "us-gaap\_LossContingencyLossInPeriod", "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyLossInPeriod", "crdr": "debit", "calculation": "http://www.northropgrumman.com/role/ConsolidatedStatementsofCashFlows", "parentTag": "us-gaap\_NetCashProvidedByUsedInOperatingActivities", "weight": 1.0, "order": 15.0, "presentation": "http://www.northropgrumman.com/role/ConsolidatedStatementsofCashFlows", "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesContractEstimatesDetails5", "lang": "en-us", "role": "terseLabel", "B-21 Charge", "label": "Loss Contingency, Loss in Period", "documentation": "The amount of loss pertaining to the specified contingency that was charged against earnings in the period, including the effects of revisions in previously reported estimates.", "auth\_ref": "r1295", "us-gaap\_LossContingencyNatureDomain", "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyNatureDomain", "presentation": "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": "en-us", "role": "terseLabel", "Loss Contingency, Nature [Domain]", "label": "Loss Contingency, Nature [Domain]", "documentation": "An existing condition, situation, or set of circumstances involving uncertainty as to possible loss to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur. Resolution of the uncertainty may confirm the incurrence of a loss or impairment of an asset or the incurrence of a liability.", "auth\_ref": "r406", "r407", "r408", "r413", "r610", "r874", "r1025", "r1296", "r1298", "us-gaap\_LossContingencyNumberOfDefendants", "xbrltype": "integerItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyNumberOfDefendants", "presentation": "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "lang": "en-us", "role": "terseLabel", "Loss Contingency, Number of Defendants", "label": "Loss Contingency, Number of Defendants", "documentation": "Number of defendants named in a legal action.", "auth\_ref": "r1296", "r1298", "us-gaap\_LossContingencyRangeOfPossibleLossPortionNotAccrued", "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LossContingencyRangeOfPossibleLossPortionNotAccrued", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "lang": "en-us", "role": "terseLabel", "Loss Contingency, Range of Possible Loss, Portion Not Accrued", "label": "Loss Contingency, Range of Possible Loss, Portion Not Accrued", "documentation": "The difference between the maximum amount of estimated loss and the amount recorded as of the balance sheet date.", "auth\_ref": "r1297", "r1299", "us-gaap\_MachineryAndEquipmentMember", "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "MachineryAndEquipmentMember", "presentation": "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPropertyPlantandEquipmentDetails2", "lang": "en-us", "role": "verboseLabel", "Machinery and other equipment", "label": "Machinery and Equipment [Member]", "documentation": "Tangible personal property used to produce goods and services, including, but is not limited to, tools, dies and molds, computer and office equipment.", "auth\_ref": "srt\_MajorCustomersAxis", "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "MajorCustomersAxis", "presentation": "http://www.northropgrumman.com/role/SegmentInformationSalesbyCustomerTypeDetails2", "lang": "en-us", "role": "terseLabel", "Customer [Axis]", "label": "Customer [Axis]", "documentation": "Information by name or description of a single external customer or a group of external customers.", "auth\_ref": "r339", "r1034", "r1071", "r1076", "r1311", "r1397", "r1400", "r1401", "r1403", "r1404", "r1405", "r1406", "r1407", "r1408", "r1409", "r1410", "r1411", "r1412", "r1413", "r1414", "r1415", "r1416", "r1417", "r1418", "r1419", "r1420", "r1421", "r1422", "r1423", "r1424", "r1425", "r1427", "r1428", "us-gaap\_MarketableSecurities", "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "MarketableSecurities", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/FairValueofFinancialInstrumentsDetails1", "lang": "en-us", "role": "terseLabel", "Marketable Securities", "label": "Marketable Securities", "documentation": "Amount of investment in marketable security.", "auth\_ref": "r160", "r1226", "us-gaap\_MarketableSecuritiesPolicy", "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "MarketableSecuritiesPolicy", "presentation": "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPolicies", "lang": "en-us", "role": "terseLabel", "Marketable Securities", "label": "Marketable Securities, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for investment classified as marketable security.", "auth\_ref": "r84", "us-gaap\_MaterialReconcilingItemsMember", "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "MaterialReconcilingItemsMember", "presentation": "http://www.northropgrumman.com/role/SegmentInformationReconciliationtoConsolidatedOperatingIncomeDetails1", "lang": "en-us", "role": "terseLabel", "Segment Reporting, Reconciling Item, Excluding Corporate Nonsegment [Member]", "label": "Segment Reporting, Reconciling Item, Excluding Corporate Nonsegment [Member]", "documentation": "Items used in reconciling reportable segments' amounts to consolidated amount. Excludes corporate-level activity.", "auth\_ref": "r327", "r330", "r333", "r1013", "r1014", "us-gaap\_MaturitiesOfLongTermDebtAbstract", "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "MaturitiesOfLongTermDebtAbstract", "presentation": "http://www.northropgrumman.com/role/DebtMaturitiesOfLongTermDebtDetails2", "lang": "en-us", "role": "terseLabel", "Maturities of Long-term Debt [Abstract]", "label": "Maturities of Long-Term Debt [Abstract]", "auth\_ref": "noc\_MaximumLossContingencyMember", "xbrltype": "domainItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "MaximumLossContingencyMember", "presentation": "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "lang": "en-us", "role": "terseLabel", "Maximum Loss Contingency", "label": "Maximum Loss Contingency [Member]", "documentation": "Maximum Loss Contingency", "auth\_ref": "srt\_MaximumMember", "xbrltype": "domainItemType", "nsuri": 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Includes, but is not limited to, single lease cost, after impairment of right-of-use asset, calculated by amortization of remaining right-of-use asset and accretion of lease liability.", "auth\_ref": "r748",

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May be provided in more than one note to the financial statements, as long as users are provided with an understanding of (1) the significant judgments and assumptions made by an enterprise in determining whether it must consolidate a VIE and/or disclose information about its involvement with a VIE, (2) the nature of restrictions on a consolidated VIE's assets reported by an enterprise in its statement of financial position, including the carrying amounts of such assets, (3) the nature of, and changes in, the risks associated with an enterprise's involvement with the VIE, and (4) how an enterprise's involvement with the VIE affects the enterprise's financial position, financial performance, and cash flows. 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Note: elements for number of nonredeemable preferred shares, par value and other disclosure concepts are in another section within stockholders' equity." } } }, "auth\_ref": [ "r101", "r826", "r1060" ] }, "us-gaap\_PrepaidExpensesAndOtherCurrentAssetsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PrepaidExpensesAndOtherCurrentAssetsMember", "presentation": [ "http://www.northropgrumman.com/role/CommitmentsandContingenciesDetails1", "lang": { "en-us": { "role": { "terseLabel": "Prepaid Expenses and Other Current Assets [Member]", "label": "Prepaid Expenses and Other Current Assets [Member]", "documentation": "Primary financial statement caption encompassing prepaid expenses and other current assets." } } }, "auth\_ref": [1], "noc\_PrincipalAmountNGSCNotes": { "xbrltype": "monetaryItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "PrincipalAmountNGSCNotes", "crdr": "debit", "presentation": [ 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branch or other business, during the period." } } }, "auth\_ref": [ "r31" ] }, "us-gaap\_ProceedsFromIssuanceOfLongTermDebt": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProceedsFromIssuanceOfLongTermDebt", "crdr": "debit", "calculation": [ "http://www.northropgrumman.com/role/ConsolidatedStatementsOfCashFlows", "parentTag": "us-gaap\_NetCashProvidedByUsedInFinancingActivities", "weight": 1.0, "order": 8.0 }, "presentation": [ "http://www.northropgrumman.com/role/ConsolidatedStatementsOfCashFlows", "lang": { "en-us": { "role": { "terseLabel": "Net proceeds from issuance of long-term debt", "label": "Proceeds from Issuance of Long-Term Debt", "documentation": "The cash inflow from a debt initially having maturity due after one year or beyond the operating cycle, if longer." } } }, "auth\_ref": [ "r32", "r880" ] }, "us-gaap\_ProceedsFromPaymentsForOtherFinancingActivities": { "xbrltype": "monetaryItemType", "nsuri": 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Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures." } } }, "auth\_ref": "r134", "r228", "r833" } }, "us-gaap\_PropertyPlantAndEquipmentLineItems", "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentLineItems", "presentation": { "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPropertyPlantandEquipmentDetails2", "lang": "en-us", "role": "terseLabel", "Property, Plant and Equipment", "label": "Property, Plant and Equipment [Line Items]", "documentation": "Line items represent financial concepts included in a table. 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Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures." } } }, "auth\_ref": "r12", "r756", "r822", "r833", "r1060" } }, "us-gaap\_PropertyPlantAndEquipmentPolicyTextBlock", "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentPolicyTextBlock", "presentation": { "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPolicies", "lang": "en-us", "role": "verboseLabel", "Property, Plant and Equipment", "label": "Property, Plant and Equipment, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for long-lived, physical asset used in normal conduct of business and not intended for resale. Includes, but is not limited to, work of art, historical treasure, and similar asset classified as collections." } } }, "auth\_ref": "r12", "r171", "r177", "r831" } }, "us-gaap\_PropertyPlantAndEquipmentTextBlock", "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentTextBlock", "presentation": { "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesTables", "lang": "en-us", "role": "verboseLabel", "Property, Plant and Equipment", "label": "Property, Plant and Equipment [Table Text Block]", "documentation": "Tabular disclosure of physical assets used in the normal conduct of business and not intended for resale. Includes, but is not limited to, balances by class of assets, depreciation and depletion expense and method used, including composite depreciation, and accumulated depreciation." } } }, "auth\_ref": "r12" } }, "us-gaap\_PropertyPlantAndEquipmentTypeDomain", "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentTypeDomain", "presentation": { "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPropertyPlantandEquipmentDetails2", "lang": "en-us", "role": "terseLabel", "Property, Plant and Equipment, Type [Domain]", "label": "Long-Lived Tangible Asset [Domain]", "documentation": "Listing of long-lived, physical assets that are used in the normal conduct of business to produce goods and services and not intended for resale. Examples include land, buildings, machinery and equipment, and other types of furniture and equipment including, but not limited to, office equipment, furniture and fixtures, and computer equipment and software." } } }, "auth\_ref": "r134", "r756" } }, "us-gaap\_PropertyPlantAndEquipmentUsefulLife", "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentUsefulLife", "presentation": { "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPropertyPlantandEquipmentDetails2", "lang": "en-us", "role": "verboseLabel", "Property, plant and equipment, estimated useful life", "label": "Property, Plant and Equipment, Useful Life", "documentation": "Useful life of long-lived, physical assets used in the normal conduct of business and not intended for resale, in 'PnYnMnDnFnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. Examples include, but not limited to, land, buildings, machinery and equipment, office equipment, furniture and fixtures, and computer equipment." } } }, "auth\_ref": " " "ecd\_PvpTable", "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "PvpTable", "presentation": { "http://xbrl.sec.gov/ecd/role/PvpDisclosure", "lang": "en-us", "role": "terseLabel", "Pay vs Performance Disclosure", "label": "Pay vs Performance Disclosure [Table]", "auth\_ref": "r1144" } }, "ecd\_PvpTableTextBlock", "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "PvpTableTextBlock", "presentation": { "http://xbrl.sec.gov/ecd/role/PvpDisclosure", "lang": "en-us", "role": "terseLabel", "Pay vs Performance Disclosure, Table", "label": "Pay vs Performance [Table Text Block]", "auth\_ref": "r1144" } }, "noc\_Q12024ASRMember", "xbrltype": "domainItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "Q12024ASRMember", "presentation": { "http://www.northropgrumman.com/role/EarningsPerShareShareRepurchasesDetails2", "lang": "en-us", "role": "terseLabel", "Q1'24 ASR [Member]", "label": "Q1 2024 ASR [Member]", "documentation": "Q1'24 ASR" } } }, "auth\_ref": " " "noc\_Q123ASRMember", "xbrltype": "domainItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "Q123ASRMember", "presentation": { "http://www.northropgrumman.com/role/EarningsPerShareShareRepurchasesDetails2", "lang": "en-us", "role": "terseLabel", "Q1'23 ASR [Member]", "label": "Q1'23 ASR [Member]", "documentation": "Q1'23 ASR" } } }, "auth\_ref": " " "srt\_RangeAxis", "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "RangeAxis", "presentation": { "http://www.northropgrumman.com/role/DebtFixedRateNotesandOtherDetails1", "http://www.northropgrumman.com/role/InvestigationsClaimsandLitigationInvestigationsClaimsandLitigationDetails1", "http://www.northropgrumman.com/role/LeasesLeaseMaturitiesDetails4", "http://www.northropgrumman.com/role/RetirementBenefitsAmountsinParagraphsRetirementBenefitsDetails9", "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssetAllocationDetails6", "http://www.northropgrumman.com/role/StockCompensationPlansCashAwardsDetails3", "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPropertyPlantandEquipmentDetails2", "lang": "en-us", "role": "verboseLabel", "Range", "terseLabel": "Range", "label": "Statistical Measurement [Axis]", "documentation": "Information by statistical measurement. 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Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity." } } }, "auth\_ref": { "r612", "r992", "r1013", "r1391" }, "us-gaap\_ResearchAndDevelopmentExpensePolicy": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ResearchAndDevelopmentExpensePolicy", "presentation": "http://www.northropgrumman.com/role/SummaryofSignificantAccountingPoliciesPolicies" }, { "lang": { "en-us": { "role": { "verboseLabel": "Research and Development", "label": "Research and Development Expense, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for costs it has incurred (1) in a planned search or critical investigation aimed at discovery of new knowledge with the hope that such knowledge will be useful in developing a new product or service, a new process or technique, or in bringing about a significant improvement to an existing product or process; 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These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": "us-gaap:RevenueRemainingPerformanceObligationExpectedTimingOfSatisfactionPeriod1": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueRemainingPerformanceObligationExpectedTimingOfSatisfactionPeriod1", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesBacklogandContractAssetsandLiabilitiesDetails6", "lang": "en-us", "role": "terseLabel", "Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Period", "label": "Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Period", "documentation": "Period in which remaining performance obligation is expected to be recognized as revenue, in PnYnMnDnTnHnMnS format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days." } } }, "auth_ref": "r175" } }, "us-gaap:RevenueRemainingPerformanceObligationExpectedTimingOfSatisfactionStartDateAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueRemainingPerformanceObligationExpectedTimingOfSatisfactionStartDateAxis", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesBacklogandContractAssetsandLiabilitiesDetails6", "lang": "en-us", "role": "terseLabel", "Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis]", "label": "Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction, Start Date [Axis]", "documentation": "Start date of time band for expected timing of satisfaction of remaining performance obligation, in YYYY-MM-DD format." } } }, "auth_ref": "r173" } }, "us-gaap:RevenueRemainingPerformanceObligationExpectedTimingOfSatisfactionTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueRemainingPerformanceObligationExpectedTimingOfSatisfactionTable", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesBacklogandContractAssetsandLiabilitiesDetails6", "lang": "en-us", "role": "terseLabel", "Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction [Table]", "label": "Revenue, Remaining Performance Obligation, Expected Timing of Satisfaction [Table]", "documentation": "Disclosure of information about expected timing for satisfying remaining performance obligation." } } }, "auth_ref": "us-gaap:RevenueRemainingPerformanceObligationPercentage": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueRemainingPerformanceObligationPercentage", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesBacklogandContractAssetsandLiabilitiesDetails6", "lang": "en-us", "role": "terseLabel", "Revenue, Remaining Performance Obligation, Percentage", "label": "Revenue, Remaining Performance Obligation, Percentage", "documentation": "Percentage of remaining performance obligation to total remaining performance obligation not recognized as revenue." } } }, "auth_ref": "r1214" } }, "noc:RevenuefromContractwithCustomerPercentage": { "xbrltype": "percentItemType", "nsuri": "http://www.northropgrumman.com/20241231", "localname": "RevenuefromContractwithCustomerPercentage", "presentation": "http://www.northropgrumman.com/role/SegmentInformationSalesbyContractTypeDetails3", "lang": "en-us", "role": "terseLabel", "Sales percentage", "label": "Sales percentage", "documentation": "Sales percentage." } } }, "auth_ref": "us-gaap:Revenues": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "Revenues", "crdr": "credit", "presentation": "http://www.northropgrumman.com/role/ConsolidatedStatementsOfEarningsandComprehensiveIncome", "lang": "en-us", "role": "terseLabel", "Revenues", "label": "Revenues", "documentation": "Amount of revenue recognized from goods sold, services rendered, insurance premiums, or other activities that constitute an earning process. Includes, but is not limited to, investment and interest income before deduction of interest expense when recognized as a component of revenue, and sales and trading gain (loss).", "auth_ref": "r163", "r164", "r258", "r268", "r302", "r310", "r311", "r326", "r332", "r335", "r337", "r339", "r346", "r416", "r417", "r419", "r420", "r421", "r422", "r423", "r425", "r426", "r726", "r821", "r1013", "r1304" } }, "us-gaap:RevenuesFromExternalCustomersAndLongLivedAssetsLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenuesFromExternalCustomersAndLongLivedAssetsLineItems", "presentation": "http://www.northropgrumman.com/role/SegmentInformationSalesbyGeographicLocationDetails4", "lang": "en-us", "role": "terseLabel", "Revenues from External Customers and Long-Lived Assets [Line Items]", "label": "Revenues from External Customers and Long-Lived Assets [Line Items]", "documentation": "Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": "us-gaap:RevolvingCreditFacilityMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevolvingCreditFacilityMember", "presentation": "http://www.northropgrumman.com/role/AmountsinParagraphsDebtDetails3", "lang": "en-us", "role": "terseLabel", "Revolving Credit Facility [Member]", "label": "Revolving Credit Facility [Member]", "documentation": "Arrangement in which loan proceeds can continuously be obtained following repayments, but the total amount borrowed cannot exceed a specified maximum amount." } } }, "auth_ref": "us-gaap:RightOfUseAssetObtainedInExchangeForOperatingLeaseLiability": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RightOfUseAssetObtainedInExchangeForOperatingLeaseLiability", "crdr": "debit", "presentation": "http://www.northropgrumman.com/role/LeasesLeaseOtherSupplementalInformationDetails3", "lang": "en-us", "role": "terseLabel", "Right of Use Asset Obtained in Exchange for Operating Lease Liability", "label": "Right of Use Asset Obtained in Exchange for Operating Lease Liability", "documentation": "Amount of increase in right-of-use asset obtained in exchange for operating lease liability." } } }, "auth_ref": "r752", "r1059" } }, "ecd:Rule10b51ArrAdoptedFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "Rule10b51ArrAdoptedFlag", "presentation": "http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements", "lang": "en-us", "role": "terseLabel", "Rule 10b5-1 Arrangement Adopted", "label": "Rule 10b5-1 Arrangement Adopted [Flag]", "auth_ref": "r1183" } }, "ecd:Rule10b51ArrTrmndFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "Rule10b51ArrTrmndFlag", "presentation": "http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements", "lang": "en-us", "role": "terseLabel", "Rule 10b5-1 Arrangement Terminated", "label": "Rule 10b5-1 Arrangement Terminated [Flag]", "auth_ref": "r1183" } }, "us-gaap:ScheduleOfAccountsNotesLoansAndFinancingReceivableTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccountsNotesLoansAndFinancingReceivableTable", "presentation": "http://www.northropgrumman.com/role/AccountsReceivableNetDetails", "lang": "en-us", "role": "terseLabel", "Accounts Receivable by Customer (Table Amounts) [Table]", "label": "Accounts and Financing Receivables [Table]", "documentation": "Disclosure of information about accounts and financing receivables. Includes, but is not limited to, amount of receivable and allowance for credit loss." } } }, "auth_ref": "r103", "r109", "r344", "r1264" } }, "us-gaap:ScheduleOfAccountsNotesLoansAndFinancingReceivableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccountsNotesLoansAndFinancingReceivableTextBlock", "presentation": "http://www.northropgrumman.com/role/AccountsReceivableNetTables", "lang": "en-us", "role": "verboseLabel", "Accounts receivable", "label": "Schedule of Accounts, Notes, Loans and Financing Receivable [Table Text Block]", "documentation": "Tabular disclosure of the various types of trade accounts and notes receivable and for each the gross carrying value, allowance, and net carrying value as of the balance sheet date. Presentation is categorized by current, noncurrent and unclassified receivables." } } }, "auth_ref": "r103", "r109" } }, "us-gaap:ScheduleOfAccumulatedBenefitObligationsInExcessOfFairValueOfPlanAssetsTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccumulatedBenefitObligationsInExcessOfFairValueOfPlanAssetsTableTextBlock", "presentation": "http://www.northropgrumman.com/role/RetirementBenefitsTables", "lang": "en-us", "role": "verboseLabel", "Pension plans with accumulated benefit obligations in excess of fair value of plan assets", "label": "Defined Benefit Plan, Plan with Accumulated Benefit Obligation in Excess of Plan Assets [Table Text Block]", "documentation": "Tabular disclosure of benefit obligation and plan assets of defined benefit plan with accumulated benefit obligation in excess of plan assets." } } }, "auth_ref": "r1038", "r1314", "r1315" } }, "us-gaap:ScheduleOfAccumulatedOtherComprehensiveIncomeLossTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAccumulatedOtherComprehensiveIncomeLossTableTextBlock", "presentation": "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesTables", "lang": "en-us", "role": "verboseLabel", "Accumulated Other Comprehensive Loss", "label": "Schedule of Accumulated Other Comprehensive Income (Loss) [Table Text Block]", "documentation": "Tabular disclosure of the components of accumulated other comprehensive income (loss).", "auth_ref": "r28", "r1374", "r1375" } }, "us-gaap:ScheduleOfAcquiredFiniteLivedIntangibleAssetByMajorClassTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAcquiredFiniteLivedIntangibleAssetByMajorClassTable", "presentation": "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsOtherPurchasedIntangibleAssetsDetails2", "lang": "en-us", "role": "terseLabel", "Schedule of Acquired Finite-Lived Intangible Asset by Major Class [Table]", "label": "Schedule of Acquired Finite-Lived Intangible Asset by Major Class [Table]", "documentation": "Disclosure of information about acquired finite-lived intangible asset by major class." } } }, "auth_ref": "r379", "r380", "r381", "r382", "r992" } }, "us-gaap:ScheduleOfAcquiredFiniteLivedIntangibleAssetsByMajorClassTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAcquiredFiniteLivedIntangibleAssetsByMajorClassTableTextBlock", "presentation": "http://www.northropgrumman.com/role/GoodwillandOtherPurchasedIntangibleAssetsTables", "lang": "en-us", "role": "terseLabel", "Schedule of Acquired Finite-Lived Intangible Assets by Major Class [Table Text Block]", "label": "Schedule of Acquired Finite-Lived Intangible Assets by Major Class [Table Text Block]", "documentation": "Tabular disclosure of the characteristics, including initial carrying value, residual amount, weighted average useful life, of finite-lived intangible assets acquired during the period by major class. A major class is composed of intangible assets that can be grouped together because they are similar, either by nature or by their use in the operations of the company." } } }, "auth_ref": "r1283", "r1284" } }, "us-gaap:ScheduleOfAllocationOfPlanAssetsTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAllocationOfPlanAssetsTableTextBlock", "presentation": "http://www.northropgrumman.com/role/RetirementBenefitsTables", "lang": "en-us", "role": "verboseLabel", "Plan asset allocation", "label": "Schedule of Allocation of Plan Assets [Table Text Block]", "documentation": "Tabular disclosure of the major categories of plan assets of pension plans and/or other employee benefit plans. This information may include, but is not limited to, the target allocation of plan assets, the fair value of each major category of plan assets, and the level within the fair-value hierarchy in which the fair value measurements fall." } } }, "auth_ref": "r145" } }, "us-gaap
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components of net periodic benefit cost." } } } , "auth\_ref": "r144" } } , "us-gaap\_ScheduleOfAssumptionsUsedTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAssumptionsUsedTableTextBlock", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsTables": { "lang": { "en-us": { "role": { "verboseLabel": "Weighted-average plan assumptions", "label": "Defined Benefit Plan Assumptions [Table Text Block]", "documentation": "Tabular disclosure of assumption used to determine benefit obligation and net periodic benefit cost of defined benefit plan. 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If a change in accounting estimate affects several future periods (for example, a change in the service life of a depreciable asset) disclose the effect on income from continuing operations, net income (or other appropriate captions of changes in the applicable net assets or performance indicator), and any related per-share amounts of the current period. Disclosure of the effects of a change in an accounting estimate that occurs in the ordinary course of business (such as uncollectible accounts or inventory obsolescence) is not required, unless the effect is material." } } } } , "auth\_ref": "r39", "r42" } } } , "us-gaap\_ScheduleOfComponentsOfIncomeTaxExpenseBenefitTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfComponentsOfIncomeTaxExpenseBenefitTableTextBlock", "presentation": { "http://www.northropgrumman.com/role/IncomeTaxesTables": { "lang": { "en-us": { "role": { "verboseLabel": "Income tax expense", "label": "Schedule of Components of Income Tax Expense (Benefit) [Table Text Block]", "documentation": "Tabular disclosure of the components of income tax expense attributable to continuing operations for each year presented including, but not limited to: current tax expense (benefit), deferred tax expense (benefit), investment tax credits, government grants, the benefits of operating loss carryforwards, tax expense that results from allocating certain tax benefits either directly to contributed capital or to reduce goodwill or other noncurrent intangible assets of an acquired entity, adjustments of a deferred tax liability or asset for enacted changes in tax laws or rates or a change in the tax status of the entity, and adjustments of the beginning-of-the-year balances of a valuation allowance because of a change in circumstances that causes a change in judgment about the realizability of the related deferred tax asset in future years." } } } } , "auth\_ref": "r1353" } } } , "us-gaap\_ScheduleOfCostsOfRetirementPlansTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfCostsOfRetirementPlansTableTextBlock", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsTables": { "lang": { "en-us": { "role": { "verboseLabel": "Components of net periodic benefit cost", "label": "Schedule of Costs of Retirement Plans [Table Text Block]", "documentation": "Tabular disclosure of the costs related to the various types of retirement plans including defined benefit pension plan cost, defined contribution plan cost, other postretirement benefit plan cost, and net periodic benefit cost." } } } } , "auth\_ref": "r15" } } } , "us-gaap\_ScheduleOfDebtInstrumentsTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfDebtInstrumentsTextBlock", "presentation": { "http://www.northropgrumman.com/role/DebtTables": { "lang": { "en-us": { "role": { "verboseLabel": "Long-term debt", "label": "Schedule of Long-Term Debt Instruments [Table Text Block]", "documentation": "Tabular disclosure of long-term debt instruments or arrangements, including identification, terms, features, collateral requirements and other information necessary to a fair presentation. These are debt arrangements that originally required repayment more than twelve months after issuance or greater than the normal operating cycle of the entity, if longer." } } } } , "auth\_ref": "r25", "r57", "r50", "r05", "r140", "r141", "r1027", "r1029", "r1249", "r1370" } } } , "us-gaap\_ScheduleOfDeferredTaxAssetsAndLiabilitiesTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfDeferredTaxAssetsAndLiabilitiesTableTextBlock", "presentation": { "http://www.northropgrumman.com/role/IncomeTaxesTables": { "lang": { "en-us": { "role": { "verboseLabel": "Components of deferred tax assets and liabilities", "label": "Schedule of Deferred Tax Assets and Liabilities [Table Text Block]", "documentation": "Tabular disclosure of the components of net deferred tax asset or liability recognized in an entity's statement of financial position, including the following: the total of all deferred tax liabilities, the total of all deferred tax assets, the total valuation allowance recognized for deferred tax assets." } } } } , "auth\_ref": "r1349" } } } , "us-gaap\_ScheduleOfDefinedBenefitPlansDisclosuresTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfDefinedBenefitPlansDisclosuresTable", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsAmountsinParagraphsRetirementBenefitsDetails9", "http://www.northropgrumman.com/role/RetirementBenefitsCategorizationofPlanAssetsDetails7", "http://www.northropgrumman.com/role/RetirementBenefitsEstimatedFutureBenefitPaymentsDetails0", "http://www.northropgrumman.com/role/RetirementBenefitsFundedStatusofPlanAssetsLiabilitiesDetails3", "http://www.northropgrumman.com/role/RetirementBenefitsNetPeriodicBenefitCostBenefitDetails1", "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssetAllocationDetails6", "http://www.northropgrumman.com/role/RetirementBenefitsPlanAssumptionsDetails5", "http://www.northropgrumman.com/role/RetirementBenefitsUnamortizedPriorServiceCreditRollforwardDetails2" } , "lang": { "en-us": { "role": { "terseLabel": "Defined Benefit Plan [Table]", "label": "Defined Benefit Plan [Table]", "documentation": "Disclosure of information about individual defined benefit pension plan or other postretirement defined benefit plan. It may be appropriate to group certain similar plans. Also includes schedule for fair value of plan assets by major categories of plan assets by the level within the fair value hierarchy in which the fair value measurements in their entirety fall, segregating fair value measurements using quoted prices in active markets for identical assets or liabilities (Level 1), significant other observable inputs (Level 2), and significant unobservable inputs (Level 3)." } } } } , "auth\_ref": "r15", "r65", "r66", "r67", "r68" } } } , "us-gaap\_ScheduleOfEffectiveIncomeTaxRateReconciliationTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEffectiveIncomeTaxRateReconciliationTableTextBlock", "presentation": { "http://www.northropgrumman.com/role/IncomeTaxesTables": { "lang": { "en-us": { "role": { "verboseLabel": "Income tax reconciliation", "label": "Schedule of Effective Income Tax Rate Reconciliation [Table Text Block]", "documentation": "Tabular disclosure of the reconciliation using percentage or dollar amounts of the reported amount of income tax expense attributable to continuing operations for the year to the amount of income tax expense that would result from applying domestic federal statutory tax rates to pretax income from continuing operations." } } } } , "auth\_ref": "r623", "r1049", "r1344" } } } , "us-gaap\_ScheduleOfEntityWideRevenueByMajorCustomersByReportingSegmentsTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEntityWideRevenueByMajorCustomersByReportingSegmentsTable", "presentation": { "http://www.northropgrumman.com/role/SegmentInformationSalesbyCustomerTypeDetails2" } , "lang": { "en-us": { "role": { "terseLabel": "Schedule of Revenue by Major Customers, by Reporting Segments [Table]", "label": "Schedule of Revenue by Major Customers, by Reporting Segments [Table]", "documentation": "Disclosure of information about the extent of the entity's reliance on its major customers." } } } } , "auth\_ref": "r131" } } } , "us-gaap\_ScheduleOfExpectedBenefitPaymentsTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfExpectedBenefitPaymentsTableTextBlock", "presentation": { "http://www.northropgrumman.com/role/RetirementBenefitsTables": { "lang": { "en-us": { "role": { "verboseLabel": "Estimated benefit payments", "label": "Schedule of Expected Benefit Payments [Table Text Block]", "documentation": "Tabular disclosure of benefits expected to be paid by pension plans and/or other employee benefit plans in each of the next five fiscal years and in the aggregate for the five fiscal years thereafter." } } } } , "auth\_ref": "r146" } } } , "us-gaap\_ScheduleOfFairValueAssetsAndLiabilitiesMeasuredOnRecurringBasisTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfFairValueAssetsAndLiabilitiesMeasuredOnRecurringBasisTableTextBlock", "presentation": { "http://www.northropgrumman.com/role/FairValueofFinancialInstrumentsTables": { "lang": { "en-us": { "role": { "verboseLabel": "Fair value of assets and liabilities measured on a recurring basis", "label": "Schedule of Fair Value, Assets and Liabilities Measured on Recurring Basis [Table Text Block]", "documentation": "Tabular disclosure of assets and liabilities, including financial instruments measured at fair value that are classified in stockholders' equity, if any, that are measured at fair value on a recurring basis. The disclosures contemplated herein include the fair value measurements at the reporting date by the level within the fair value hierarchy in which the fair value measurements in their entirety fall, segregating fair value measurements using quoted prices in active markets for identical assets (Level 1), significant other observable inputs (Level 2), and significant unobservable inputs (Level 3)." } } } } , "auth\_ref": "r1359", "r1360" } } } , "us-gaap\_ScheduleOfGainLossOnInvestmentsIncludingMarketableSecuritiesAndInvestmentsHeldAtCostIncomeStatementReportedAmountsSummaryLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfGainLossOnInvestmentsIncludingMarketableSecuritiesAndInvestmentsHeldAtCostIncomeStatementReportedAmountsSummaryLineItems", "presentation": { "http://www.northropgrumman.com/role/SummaryOfSignificantAccountingPoliciesSaleofMinorityInvestmentDetails7" } , "lang": { "en-us": { "role": { "terseLabel": "Gain (Loss) on Securities [Line Items]", "label": "Gain (Loss) on Securities [Line Items]", "documentation": "Line items represent financial concepts included in a table. 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Excludes US treasury securities and debt issued by government-sponsored Enterprises (GSEs), for example, but is not limited to, Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac), Federal National Mortgage Association (FNMA or Fannie Mae), and the Federal Home Loan Bank (FHLB)."}}, {"auth\_ref":["r1004","r1036","r1393"]},"noc\_USGovernmentMember","f":{"xbrltype":"domainItemType","nsuri":"http://www.northropgrumman.com/20241231","localname":"USGovernmentMember","presentation":f{"http://www.northropgrumman.com/role/AccountsReceivableNetDetails"},"http://www.northropgrumman.com/role/SegmentInformationSalesbyCustomerTypeDetails2"},"http://www.northropgrumman.com/role/UnbilledReceivablesNetDetails"},"lang":{"en-us":{"role":{"terseLabel":"US Government [Member]","verboseLabel":"US Government"},"label":"US Government [Member]"},"documentation":"US Government [Member]"}}, {"auth\_ref":["r1004","r1036","r1038","r1051","r1393"]},"noc\_UnbilledContractReceivablenetofprogressandperformancebasedpayments"},"f":{"xbrltype":"monetaryItemType","nsuri":"http://www.northropgrumman.com/role/RetirementBenefitsCategorizationofPlanAssetsDetails7"},"lang":{"en-us":{"role":{"verboseLabel":"U.S. Treasuries"},"label":"US Treasury Securities [Member]"},"documentation":"This category includes information about debt securities issued by the United States Department of the Treasury and backed by the United States government. Such securities primarily consist of treasury bills (short-term maturities - one year or less), treasury notes (intermediate term maturities - two to ten years), and treasury bonds (long-term maturities - ten to thirty years)."}}, {"auth\_ref":["r1004","r1036","r1038","r1051","r1393"]},"noc\_UnbilledContractReceivablenetofprogressandperformancebasedpayments"},"f":{"xbrltype":"monetaryItemType","nsuri":"http://www.northropgrumman.com/20241231","localname":"UnbilledContractReceivablenetofprogressandperformancebasedpayments"},"crdr":{"debit"},"calculation":{"http://www.northropgrumman.com/role/UnbilledReceivablesNetDetails":{"parentTag":"us-gaap\_UnbilledReceivablesCurrent"},"weight":1.0,"order":1.0}},"presentation":{"http://www.northropgrumman.com/role/UnbilledReceivablesNetDetails"},"lang":{"en-us":{"role":{"terseLabel":"Unbilled receivable, net of progress and performance-based payments received"},"label":"Unbilled Contract Receivable, net of progress and performance-based payments"},"documentation":"Unbilled Contract Receivable, net of progress and performance-based payments"}}, {"auth\_ref":["r1004","r1036","r1038","r1051","r1393"]},"us-gaap\_UnbilledContractsReceivable"},"f":{"xbrltype":"monetaryItemType","nsuri":"http://www.northropgrumman.com/role/UnbilledReceivablesNetDetails"},"lang":{"en-us":{"role":{"terseLabel":"Unbilled receivables"},"label":"Unbilled Contracts Receivable"},"documentation":"Unbilled amounts due for services rendered or to be rendered, actions taken or to be taken, or a promise to refrain from taking certain actions in accordance with the terms of a legally binding agreement between the entity and, at a minimum, one other party. An example would be amounts associated with contracts or programs where the recognized revenue for performance thereunder exceeds the amounts billed under the terms thereof as of the date of the balance sheet."}}}, 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N^>SG1U^>?>+X MH^>LX1ODQO/GK=WI 0C021^>#>4T1MEF1U;SUF1AVU2CYA;2YR.W^>3(1^>M1Z^>8XJ^>+>R1UNBRM^>1^>S=NWYD1 V-B\_2A1\_Q&S1RB6&MT^>1^>1O5) N6@  
MPPY^>57T1+71^>FB\_>C&B1-P^>F1OC151=>C^>N-ECH151Q1371^>Z1S^>=>MB1>60KRE1^>6DYC^>1^>W-CW^>NP1ZUE+>M1H&70-ZAN1C;0ZT1^>1^>SSVDY?  
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M?H?<=>D4,H8S-1S150-1ZU080\*MI-VTF?RL<=>IC5CT0+VZ=>E#8U-S3K4K12N6810\*PL10V5VJ+IQASG6HJV-0-ZZ3/UQ14YPM,LU?<=&A?O1-4\*M#D<=>(P1+\*#>+  
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 M-CPJZJH=>9/KOJ5?H.S.M7J5Z>1-MX?<=>JRD-Z+54LRJ&Z?>6L>=>S1(MSH)VK+VY9=CXXH0?<=>T,Y?5P7J?<=>N5?<=>PJ1,D&S1:DVUDAF,JA?<=>I  
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 MOQD1?S<=>172>UAWOJH?I1Q&S?&THA1446-15R?<=>6MY&ARS&MKH&S.(SBEF M-D?JG/L-RK&1+>=>A6,3DKH?<=>J&=>IMW?VBDS&C1X&ZZ?<=>3@D7MPYSEAI  
 M8#&S0&B-59?<=>C%<=>Q?<=>H(C@+<=>PQ&A10&X2R?<=>1L&=>=>S<=>C1<=>=<=>O&B?Y?H&1-MJ,K&A,H=5T&L,M2GW&V.FEPC.91&1>=>2?<=>XN?V3?1F2Q>=>3.K?<=>2?<=>  
 M.T+BE?X-XO42M=>C9W?<=>DI+<=>L-CM93?CH?J1+>19IXYK1.8M1D?<=>EK#W>BGF&S.M570%<=>)&N.DS+<=>M/YK#8<=>=>?7T01H?WBGOT.8V.TGK7-G<=>1.U?F?H?N?<=>ZOOE?2J05ZIH0FI-S  
 M=>E&ZRES&S46G36V6Z12W?<=>S=N&S,KU0259YQ?<=>+>DOP19Q3?<=>J&JUN?<=>E2R&S+<=>M1&U?<=>6H?EIG5?<=>S=>G0201?<=>U?D?HJ&C16H7H5R3M51XHOZ51HH?<=>  
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 M2F&K&B?9L&=>A1U<=>60F?1&?<=>M?<=>(M<=>4L?<=>C?<=>M1?<=>ZLIEP?K&SD0?7B4C<=>3.M?<=>W?<=>P.3&E1X01U-W/G?<=>Q?0EY?<=>W&XMA&S?<=>K2-1&?<=>OY&ZH&=>2K0?<=>Z2?<=>M61=>  
 <=>1HB>=>ZP,<=>31Z?<=>=<=>E2XO,ZP,<=>1(OYT&6?<=>N&?<=>ZRS&2 M,6N6?<=>Q?<=>4&C?<=>14?<=>1&KE?<=>G AT+U?<=>H) KN=7?<=>P)O4X&WOIBE?<=>CAZ&M?<=>AOX?<=>P&V?<=>N?<=>H(K=<=>@<=>  
 <=>S&SIN?<=>GOKI5?<=>1?<=>(<=>B9212=Q?<=>=>69?<=>Z?<=>5P?<=>M?<=>J?<=>PI?<=>1&I-KH,X17R>=>4?<=>N?<=>IM,IMYU&S<=>K1+<=>L1&?<=>G?<=>HNE.WVY?22KY?<=>U+<=>H?<=>60T?<=>Z.MNFE?<=>R/  
 P&M&XD,8=<=>R?<=>O?<=>=<=>L5N6W?<=>4,1I3?<=>=<=>W&XO1K39&1Y80?<=>R&S(5Q?<=>NY?>=>9F-EF&M=>B5?<=>A0?<=>X,XJ1)8?<=>2SF&0?<=>=<=>IASY?<=>IZLF?<=>6&S(5J?<=>U?<=>12R?<=>ZPP2DV#  
 M1.P&QZ&1V>LBPB?<=>3V+1>HFT?<=>=>A,91+<=>L?<=>K3&4?<=>UMIRC&I?<=>73HG?<=>IRV M5?<=>=<=>B&K:1DI?<=>2,2CV?<=>51226R&YK(ZA05?<=>Y&M&S.5NJ?<=>U?<=>32BMY0ZDB<=>M912YC3-  
 1DN?<=>S&N&L<=>4&S&Y3?<=>I?<=>O1-Y?<=>J?<=>O&H?<=>121&SHVPDUMA0B6<=>=<=>F%=>=>M?<=>=<=>207E6&B&W?<=>4&P&D?<=>51?<=>1MX1+<=>1?<=>713C190?<=>10RQO6BK&S19?<=>S?<=>2@<=>M?3?<=>=<=>H1C?<=>  
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 4+YD&P&F&IMSRQ1&L14=<=>0=>=>Z2M.GL&C.SC?<=>99C0OZIO&EJDL M2Y6&R?<=>1Y45-W?<=>Q&9K1?<=>V1F&Z-Y?<=>Z?<=>F?<=>HR>=>E4J?<=>H?<=>S&J&K?<=>3DU1-M(9-B?<=>TN?<=>Q?<=>E-  
 1+<=>G&XCF1Q1+<=>ZRG?<=>0&M4&RFR&C&KPB1-L?<=>C9?<=>ETW?<=>1?<=>M.E?<=>F?<=>H&=<=>B&S&G1&5?<=>B?<=>V.G1F13<=>I  
 M?\*<=>A?<=>A=<=>AUQ5N1T3?<=>5%IXYP72T?<=>WL@B?<=>N06-(N44Y\*3Y616+<=>L1&9XJM&4LU-2M?<=>P16-(J1+<=>P.OH.MA?<=>T?<=>5%HW&M-90V?<=>ZQ1?<=>7?<=>TS04HK=<=>(<=>JFEEL?<=>4D?<=>M?<=>N?<=>WE  
 CX&40&PJH?<=>=<=>FGJ1?<=>E.HH?<=>2<=>CHH2&H8?<=>=>S>=>Q?<=>2&164961?<=>M?<=>T?<=>



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 C6/AFALQ6<057KJ+L+D M0YH&ZK1P<+<M&2'DGX&48D.KEGZ+FD10FV.W1F#F1J.TG&9I7F&Z5&Z3 M2W.M.F%Q.0KTI=UB/(1PFS=U=5-70I'4H7I0Z7V3&?<  
 D12%)IVQ4CYKN 6+JA ME2I9+3TI'CLB9P4LVQ\*QYW6H#1.#4B=DHBWBPOQ-TELOQ(D?<O&OJF+0CN8.MKKH37<LAJ8FH V46DI'<ZN.<4XK9IK3)17%?  
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 BNKU.T5JR9GQO CZUB>44.066 M-KFU76+G13AU'U'NZK=2%>5+E+T' M%ORP=>E447PZ1'ZA+AWQM  
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 MIBLD.P#<8&H4.72T=>=EW8GFE1JZK4<.#GSJZ9U&G7HJ'POHNLK7.QD.M'414JW<+<@&H1&M3.1X1&1'<M3N.X0G.M#ENVC%ZQG<.  
 I#7HPUIH6<\_JB%\_K@U'5P+6A/255ITJROB'56H&BI+2V<M# 42ZXARK.H6DOL6.IT%&835HD3Q'>28OX 4PV3#A7YN0+<ECH72HY(I172FN UG2Y)@N@07>=>6: M|  
 H1#-.8%>57KRK+W\$+1R<1Y'IKV=N>3JZ>G6H1'U'W@W0657K7BCN)K0 MUHMD6V4CY5'U'P0.21'<R'CF'EJ>J>4W5Y&G672\$1.4&9.IMKK<K03&C<  
 M2+>2.<CM#901411(13&\*>O.Y9=>#EK<53.PMAWR=>1'<1)SPYMG7>:YR<@>W MVL1LR'>JL&LO&GK2V1ZV)3&G 9-Y1.19TIA=>2.RM'F<HHPB=>0.11H+U+<Z:W:R<  
 R<6OMCX3.BR<DOUBR>=>=>1%5&H<(>D>=>I&6W 3@2>SJTSTFOW M.6.R2A'X&Q J4 EKUVS=7V<+<V<DFAJ9I&X+<U'<=>5&328DIH1'  
 M59I&E3.CRY'QC'E72DN&ZEO'.9'495ND4YAW&Y&H52%<F4.H13=>E95R1HD(SH M=C">49924)9XCGMIMN4+EGE7.1=<@>Z&1'7P'<26ILB# X<=<PMSZVP  
 M<P>(<21EH9M1U0&Y 8(A12+<HWH-S&=7\$#JZY'<1S8JR<+GOMVH#GP M(Y KPO'F2).NFVA\*JK3I@Ts.M@R#D5PTA1ZJF<P&E'P&S.(5.IYOX'20: MHS6+P.#<  
 C#<09'=>P171YK3B<V'Y'YOS 8'>1J15&GAB6B;YF7F7'MZ4O'NX/E+<S'U<+<A4'.1.IKM6P7A62NE2W8+>=>N9J1'<HIG<S3646 MEJ9RHN=>#NM MSIPW'IN) Y-2R  
 B2XIO'QOT&1'<=>RRVW14M4X'>1% NCD.M TG.H7HM<6&H1Y0'@#0H(SYU.KC70BIDYH1H581 010N8H1U4=>E508 M8'FZEYX'>14)TIQ199HKZ'Z NOQ'N<  
 ZK&Y<O#<H4BF4U1<(>J.TMDR275 M1M<36YIM5#<WDBUK9SE.69HJRWX515UF6P7C1+R.2'T7IM@>V1J'<Y MB'EHE82>H>=>5I82<'<F98Z+U1ZRI4C4P<  
 >XIOIM-ERP'<YGM5R) MJEZ&L2N0G1%IN'A'5'5E9QK10KD.NR16<PR'>JWYGH51UFG7L'<@&M7\$J'F&G5'JHEKX.MK&8H.80ZD  
 (G&Y+RL&2)K<P9N.N2D)N1LRAIRD0.M8%7ZGWXA13.WOH.CT4PI&A\$K+<+<T'2'<JPNLCD'CFAM\*Q08>G3IVR+<89ID.P6<=>R5\$66=OM@<0'<32'<UYPH2V3.U&R<  
 W.OXN'F'<T IEILOH@ MQ M+7V1<ARPE8B6-L0+P2'P5W0E.BPOK)GDET6W72'<Y=>1.JWH.JRP M#3B><XZ3C'=<H6>3K'YHIA<6N4'X3M1AVITW0>.HN6R+<  
 U/1.INIU.MGL+L1FULV4J.B<\_<QQ2W=M'<Z1CH>=>(PP.P&UCU5Y360R8M+MFHZX.KO MPHGC3'M4=XX#X1G067YVW/WBIO.IST28>'<48.BYT'<SAV612<'<7X  
 6P17<9&DUYU'<#<6'DY2NTM'<X&A'<O19) MKP1R8M&R&AIY'K+4U-9'<T'<2DRBTE8H1/20V7'3XWU<+<V1M1 YIF MC DE.PG'HHJ&4.N'18U&QG>F9'>  
 I&C8MS<=>FYS'F'<C O.MB 07ZO<N'<N142'5'DOA>C1=>B'<=HKKF1CT OS'9&Y'K1SCGF.ROX  
 M4'C3+GI2P'9&EL.S18H'R80\$(<OZ1+1L<F.T88R.Z:J&1X4'E2BYJ6.L'<5&89>=<MG.OU\$Z5Y1/AC12A16SVHHPT7J.1@J1'<G<=<N1G&30K&S'<4'<61D'N'HY&50#<  
 #>D'<1S.RIGIS.UL.S.KTK<@IN1F1&(4'<U/JUE0FA2=6S'N'>1@E.MJNK19'<P29>15'<H5>31@<U M2#80V'<T'<H87B49P\$+<T4OX74U0>@DPD)FITN'P322QI'ICTBFK<  
 7>1>SD4 MU.BEIMJHR>.<#<51V46RE <C/1Q50/AAE<+<57W1'PQ9&8&.(R03F7'<M3.A\$E&RBB&AKG254GP'913DF441WDE>'<8EPYGG.E.L%<XBR=N.8B1#<  
 MIO>=WQV6/140H1(93V1U'<6&61X1NH'Al>T.DAC3 1K13Z=<673'KURC.MG%<XKK<1Z963'<C.MY'<2B'<R'<1J0'<G'<VNZX'<U176'<6MUA'11BVH'<1YPH&AB<  
 E.DR6P<1QJ6 M<B9-LB1'<5>+<Y%41@IN912>STSD'<2T1XZ1'3'K'<V446<+<QJUE.S580 U=98 M4UN'<1BCC94'<580'<08.1'<6JG&49)(<@101'<PKA'11781'<1'<Y'<@<RB<AB<  
 MVLNCU'<E6D>RHY M.PPA'BBR>M'F<=>#H9G&X1YCYZ'<6PB(RM&ND'1N4XTPY6422MC=<K1&F<44.MTH'.9P<=<46'<S8'N.D845.SNRD=EUANST3>R5AN\$4.1M1  
 ME#13A.11JOV<(<X(KFNO)>(6H5:CIW#WS-47P#0'<PH2'<@JUFF+M'<M'<N0)PPPZ M.YS<K'<TVEL R'<N'<M1G871K'<7'<4U5'<4D2'<5\*8.P8Y0<=<D1MVK624)GFH M'<C(U)IRR<  
 <#<'F1GG6ND813)JCG 4&7.52P<D\$D=BB<M'<OZV'<H<+<F'<#M098KIND&=>B'Y YPVJ56JW'<4'<R'<TJH861)9'>19'>M7I'<N3'TDTH<@ MEW53P?<  
 Z:<=>RW04Q14.M'<Z'<B71'<U'<E5(B1B72L3PR8B36SOR31Z1'<M1\$<527K4'<1'<M5'<+<03JH1H10M3C57J'(HHHA'<X8D'<R0'<ZL1'<UXRZKJZ1'<M'&lt

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[illegible]

[illegible]



[illegible]



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MF.F-0"0#17X+H.,B:36SDVO1#DDT?#V:1.SY.P53LDE8S4WCK?B9-MOJ9GN"ZZ.M<1>121Y(>#.#A\$?IM^FCD47-WZ?ZZX?/L.N:08U^ZLST-Q-M\*E@/HYIUDS-2:18.75.Q@<1>L6X+XB\_1-9<1.NB@X93)HKM.B/HN:B#P%3@<B@392+9DA#A@BFSY#<B-MPGQ&3>D+L@GL.EA^T8UJ\$<1>YVW^81(G)870S.U^%QLG5^86HHQ+MW.M-H:Q2@AYPHJ2WSB1\_1.T0N6<=900Q/O#B/LMS-02H0PD)2H3R42.M?2ZM<=T57H@<H.FP^HH^L^39&PG<9/(<HNER>2.W1T7G<2.LH-Q2.M+0<V17R550.WIO.^QHAGNS/AL3\$#(12+QZ\$TK><OJH)1AZR4.1+2#91.M^H\$SQ.XT.I8G1@H92GMYBSZ^\$TC@/I2%<@OQY5%1<Q&KM75).JRTZ7CF<@NY.M&H^<WFE3V^XUIKUIBW#.#G12!(O^02K1<>S7^XKY^189B2HBOH2>#1^NWC<?,>ZEVX<GQX>GF<@>A.L-0^1^I.(O@^F9!..5.W6.T:R.MFL^<EP#B5Q.O1<=EX>#G3WC.K9.S5BD^48Y<=0.YK-MZ2?<M.N.H.I.M)92I^R2J-P5A7E.MG8VW.^<@242>1.3.YF.9Y>IYKWV^7VDI)(<H-EXF^QO&A1^<OZ>^<Q&K%?R^XRS-V.40H^Q#<QO.ME3A9)H-0.G2L(MBP44H2N.EE6E#0Q@<3QM/HJZ^<6.S5&P125)1#40<=M0K^H0SL^<HFC0N0^53P41@<M.L502(6%<H0=5>10?>F3<4Y4Y1FAY^<4.GGO.M^#E#A1L6K7&.)@H5^TC<.(H3C%#H0?2P1P7621O246/^X>@<LFW+<MW4.M18(6699%M2G=5%2^R%<ISP+<O45L.H0-Q.OJ.PL.ADS:YUJL.LRMH.8VECL.H3^X)X.^<2=1#<5=2@<Y&HUYAOXH^<F(OMYNIH^<GF.K/TI2JZG/NLC^<M^SF^DE6631S^Z3=X^OY&5H^<C1MOE)<[W\$SfT2W8+P8A.W0%<T>2+4K2+P:1?3AP2^X#%<1.^?L56U.0T.M<L.EW@8ZIT<^V1\_+^\*L.VRR.L9P.K=8%%\$Z&U/L.MHJ07&(<TNM(1.4^!Q@>Z6);B12231?XIASU^IYBWB/LPZ3Y95>4A?FGXZ.MFY.^<#41?FEW^F7F9<#<6>B7&E^A35O^9S^!<G.M^IV<4AYYK+MC+X\$3E.P=F&Z8508C^N.(XWLP^<M.7^ZM3K#3#<CJT^<3.MK%L158^?Q23?3K#<#518R#Q.O.FH51\$S^PM0G#U8.4(H3G@=121A+7C1A.MTW\$7<(1W0.G@<LM0D-.0&^<4DP.K@<A^<0#L^<Y6.1^(<#>..P99HFE=YC.M\$..SORRY(NIKB(<#N3A1K#6H+<X)Q^IV^JHLKE4=<9X5H1+5.3^>DVA\$F9?2F^TJ.2JL.M1^3F#3>..<C\$>=<S&O^<CA^TG.@OEBA^<OS^<8^<S.W6N&<<1>(<@C^P.MAR5D<(<HWPO3^<#58100-EPJ.P.MOE\$<#N1E1P2<#<#<LNI^L.WXIB^<#<16GA^<K.M1A1^<1^<J@<U9BB#<#<BN1(l@<3^!<T6)HH5D.9TKZ7+<3^!<T552.M57(0V)^<X.WMS8.WR.DH.PMSHM+10^5D<#S\$OH3^<C+>5N5928J2Z9>^Q.MZKS4-4/<CN)X.I^>#<J\$S#13(XP1IHHORP^KPXI?IE&V^<K.M^<P.X.#<J.M.<F.<I&W8&(<O4KRS^<M^<F.X.BA9@<L>8./B0/(X.P%O&H^<BEU^Y295E^2JH.MB^U972G9\_@<J^<1\$D<DXIV\$<H\$<C667QX&V^M#1).#4VKN19A8WU>#<T.M^<Y^<VW^<MTO610G7BTH<K.A4A0>DGVWYHES7^<G.M6X&H^<U6H.E\$J.MEQU^<F.E^<MAE^<#VX.LE81GCB&5^<C<=7ZP31^<47JH.R10TEX^3VJZ\$E=M31..#109#<J@<=NODP^<E1UE^<NJD2^<A13ED+<VTP@<KA<8U>F5R4=<S-PG.J.M33^\$<8^<M+4M3+<+<TWSFOF40Z>^<J2@IPE.YH^3Q^<P^<H^<KT<@<P.U^<M.M0TL^<2VW+1^<WSU.W+<S^PKMP.WSW^<4G.LNUP>@QY-YZ62AU=MR&MJQ(<42N\$<R10\$U42.LP^F7G9VPL^<G&ZG.M^<N2A1H^<ZLBI3Y10./KTMZ>20N3A4V^<TQ2L^<0JH1^<12H1PZJVK126^<L>C56FW@JL^<D.S&BDWC^<O6+1^<J-0L.MOMMBQ>D.YSR#<..H2^<WDIRC.G+<S@8HJH?7G#<\$.HM.S1>#<G\$KK6:PUHG-M3IXK^<1.45&6<DQ9I7B.4<6&7.8.MO#<610X>@<75XP8^<RR@<3>P15M4BBJ^<K#M^<H%<NKM)<^<AWU^<FWB(H)O<C\$F(H)<@<MDR.B^<FZ^>9@<BIU2T#1:6P.M7B#<..<7869G2D4Y8.31XD=<3^<S^<T\$P57HJHIG.M%<@<51@A\$1^<N-1^<6&6W

38I.M-6=Pl+<D6SBFB0^<SVA.NJ^<#E@/H^!A^<FICV\$<16:1\$<XO123U^<U^<F@<C@<D4570^<A>\*<ZVY@<N#<#29ZN\$#<IP>9.E^<#7%Z@<7J#<^HE9L^<U10^<UTR^<A.M79GMBCL^<#00EP^<TY^<AB.EOTQ09RYB01VIXP^<U^<AM1G1&G>4.U.W\$S^<WIM(<J.91#<..<C816C1TG.GDDW<=<F^<#<2>B6N&A^<K0<B.C.M^<2X^<H41AM1@<GMJ&WT7ZB1?<6(12G1GVZZN)C^<LJG9+<0H1V>+7^<K.ML^<H1XP.F1^<I\$8&^<Y>RVAKEEYF+1I9IV4VTM@<6:6)D1\$<X^<Z>#<TQ:80^<H119?2Y>..MX0.^<RP>@<E7C+<ENDL+<Q^<1H1PJS.QIVR^<24BNSH^<QL&\$.#<J3ILC1+5&M10ZV-R\$?Z5.13#..<N0S^<RCCH0^<#7+ND(6^<I%>#<68(S.MH:U^<J9=IYQJ.H481G^<+<4=Q)A>P+<L.PX9L#<K^<AR<@<OJUT&H^<BD#P.MUXBQ=<.<8FOC?SY^<X@<VTM3Y02ZWL^<H09\$<#6^K2PPIX^<M3&X3NWH7.FKVY^<P08U19V>DYH^<JHFMCM<V^<F.PL8H^<U350.L1WB^<S^<RVOJ0.M02LR.MRCS.D8&GX^<44K1+T^<U+<HNRLX.OSZ^<H^<MBX&CN^<I^<#E&0T;KE.M3R5#<=<XE\$F7^<Z^<K^<5249B^<NKO.NH>#<6G?2S)H+<3HGHV#<@<Q>S\$4E.BMGJ^<M2^<#<2=20ODH21U1L2JH^<@<IGL.B^<5AY.CA.EH^<LME5BEEFM2.EE9#B>GGFID^<#<#<62JZ6.HHUV2Q^<EXRD^<B^<YOOK.MJMZ^<715508-V^<#91@<LEL^<N1^<1^<MC@<I^<N1?<46IV0L.NIAZ3^<B.L)D.NP>=<C(NON2^<QF2G^>5D)R>01%AP^<I.M\$<J^<WDE82^K^<9(KL1P^<V+V\$S62M^<4FMSF^<KV3I;SFZ9V3I+I^<POHAKH1^<0.U.M.8F^<BX>73ICJ^<F;LOL4=<?<0=ZP0^<P.680?<7XIXH3Y9E@H3^<P1^<O1B)B.M^<C^<U^<Z92.IVSF50^<H43ZM^<W8^<4MSAHT^<9.FHSA^<E5^<FTG1^<C7DFA.OX1^<E).KYSO2W^<7&4&5B7^<R^<0T^<M3^<PVB32^<W818145XK^<T3+<Y^<7ZHSRL<1\$1Y^<0PAZI+<FJBLR.02^<7L^<H1V^<HLD1^<W1#91.3X1G1+<B&E.C3/L+1^<JOHC(KTSY1@<6(X#P1H^<8+<M^<U<+<#1<R>8F1G^<#2.IH8^<3XAI^<F+<FMH.E008/R4?<B0?<170^<0^<OTIC^<M.G\$<5>2@<2X^<2^<P1PV^<6(TXXI.B^<X^<JPKS6^<GPXA)1^<#X^<979XZ@<IRL\$<X05.M^<@<X<..<L1^<LJVGM@<?>XW#<ALY>Q.O.5.0.VB4+<1^<I606K^<E.O1T1^<F.M^<T2&^<P.S^<D5^<2^<P1HV.P9.G62^<Q3H1^<JPHJ.XD^<#029YCWFXV;RX9>#%<M&R19R+T^<D1^<MF+<C^<JF88J\$7@<LEK@<V^<49RV&O^<L^<V&^<2VHDL^<N%<J%<W9RIK^<Y7+O\$HJ.Y^<M^<C<..<6DDL^<WA9J^<V+11R^<C^<W.S+0EA.^<PB5L1&^<ZW.NU^<40IG+<K1>+<P.M%<55;X^<H1E=ABDZK^<4P^<W^<1^<MOS1^<J^<PWO^<7^<O73H/3X1^<35?>POV^<F^<V7&6OGY^<9D^<HFP9K044D^<K.M.AP^<1^<Y0OCCKJF@<M^<W&@<44>3><6>Y3^<H5^<14>^<3VVC@<B&K^<WR^<W^<F^<YX.M^<#<78X4Z0.L4H2425^<TV3K+<Y^<31-0S&G^<E..2Y^<V^<1016^<DON.MN.30P^<22)0X.H^<MORLW^<I^<NWK1^<8<@<40G@<APTHLK^<H3^<VH1^<7PFD1^<P+<MNZ1^<T4+<HM.WK.87R0Q22B1R10\$>1^<QKZ9\$5^<MC2Y0ZCYGGI^<#8I&BVK31.M^<M.S&870W.HH7782.WD51^<TVXUBA\$31<A^<U^<H2DZIKL1^<M=KX1^<VJ^<KUM^<4G.LNUP>@QY-YZ62AU=MR&MJQ(<42N\$<R10\$U42.LP^<F7G9VPL^<G&ZG.M^<N2A1H^<ZLBI3Y10./KTMZ>20N3A4V^<TQ2L^<0JH1^<12H1PZJVK126^<L>C56FW@JL^<D.S&BDWC^<O6+1^<J-0L.MOMMBQ>D.YSR#<..H2^<WDIRC.G+<S@8HJH?7G#<\$.HM.S1>#<G\$KK6:PUHG-M3IXK^<1.45&6<DQ9I7B.4<6&7.8.MO#<610X>@<75XP8^<RR@<3>P15M4BBJ^<K#M^<H%<NKM)<^<AWU^<FWB(H)O<C\$F(H)<@<MDR.B^<FZ^>9@<BIU2T#1:6P.M7B#<..<7869G2D4Y8.31XD=<3^<S^<T\$P57HJHIG.M%<@<51@A\$1^<N-1^<6&6W

38I.M-6=Pl+<D6SBFB0^<SVA.NJ^<#E@/H^!A^<FICV\$<16:1\$<XO123U^<U^<F@<C@<D4570^<A>\*<ZVY@<N#<#29ZN\$#<IP>9.E^<#7%Z@<7J#<^HE9L^<U10^<UTR^<A.M79GMBCL^<#00EP^<TY^<AB.EOTQ09RYB01VIXP^<U^<AM1G1&G>4.U.W\$S^<WIM(<J.91#<..<C816C1TG.GDDW<=<F^<#<2>B6N&A^<K0<B.C.M^<2X^<H41AM1@<GMJ&WT7ZB1?<6(12G1GVZZN)C^<LJG9+<0H1V>+7^<K.ML^<H1XP.F1^<I\$8&^<Y>RVAKEEYF+1I9IV4VTM@<6:6)D1\$<X^<Z>#<TQ:80^<H119?2Y>..MX0.^<RP>@<E7C+<ENDL+<Q^<1H1PJS.QIVR^<24BNSH^<QL&\$.#<J3ILC1+5&M10ZV-R\$?Z5.13#..<N0S^<RCCH0^<#7+ND(6^<I%>#<68(S.MH:U^<J9=IYQJ.H481G^<+<4=Q)A>P+<L.PX9L#<K^<AR<@<OJUT&H^<BD#P.MUXBQ=<.<8FOC?SY^<X@<VTM3Y02ZWL^<H09\$<#6^K2PPIX^<M3&X3NWH7.FKVY^<P08U19V>DYH^<JHFMCM<V^<F.PL8H^<U350.L1WB^<S^<RVOJ0.M02LR.MRCS.D8&GX^<44K1+T^<U+<HNRLX.OSZ^<H^<MBX&CN^<I^<#E&0T;KE.M3R5#<=<XE\$F7^<Z^<K^<5249B^<NKO.NH>#<6G?2S)H+<3HGHV#<@<Q>S\$4E.BMGJ^<M2^<#<2=20ODH21U1L2JH^<@<IGL.B^<5AY.CA.EH^<LME5BEEFM2.EE9#B>GGFID^<#<#<62JZ6.HHUV2Q^<EXRD^<B^<YOOK.MJMZ^<715508-V^<#91@<LEL^<N1^<1^<MC@<I^<N1?<46IV0L.NIAZ3^<B.L)D.NP>=<C(NON2^<QF2G^>5D)R>01%AP^<I.M\$<J^<WDE82^K^<9(KL1P^<V+V\$S62M^<4FMSF^<KV3I;SFZ9V3I+I^<POHAKH1^<0.U.M.8F^<BX>73ICJ^<F;LOL4=<?<0=ZP0^<P.680?<7XIXH3Y9E@H3^<P1^<O1B)B.M^<C^<U^<Z92.IVSF50^<H43ZM^<W8^<4MSAHT^<9.FHSA^<E5^<FTG1^<C7DFA.OX1^<E).KYSO2W^<7&4&5B7^<R^<0T^<M3^<PVB32^<W818145XK^<T3+<Y^<7ZHSRL<1\$1Y^<0PAZI+<FJBLR.02^<7L^<H1V^<HLD1^<W1#91.3X1G1+<B&E.C3/L+1^<JOHC(KTSY1@<6(X#P1H^<8+<M^<U<+<#1<R>8F1G^<#2.IH8^<3XAI^<F+<FMH.E008/R4?<B0?<170^<0^<OTIC^<M.G\$<5>2@<2X^<2^<P1PV^<6(TXXI.B^<X^<JPKS6^<GPXA)1^<#X^<979XZ@<IRL\$<X05.M^<@<X<..<L1^<LJVGM@<?>XW#<ALY>Q.O.5.0.VB4+<1^<I606K^<E.O1T1^<F.M^<T2&^<P.S^<D5^<2^<P1HV.P9.G62^<Q3H1^<JPHJ.XD^<#029YCWFXV;RX9>#%<M&R19R+T^<D1^<MF+<C^<JF88J\$7@<LEK@<V^<49RV&O^<L^<V&^<2VHDL^<N%<J%<W9RIK^<Y7+O\$HJ.Y^<M^<C<..<6DDL^<WA9J^<V+11R^<C^<W.S+0EA.^<PB5L1&^<ZW.NU^<40IG+<K1>+<P.M%<55;X^<H1E=ABDZK^<4P^<W^<1^<MOS1^<J^<PWO^<7^<O73H/3X1^<35?>POV^<F^<V7&6OGY^<9D^<HFP9K044D^<K.M.AP^<1^<Y0OCCKJF@<M^<W&@<44>3><6>Y3^<H5^<14>^<3VVC@<B&K^<WR^<W^<F^<YX.M^<#<78X4Z0.L4H2425^<TV3K+<Y^<31-0S&G^<E..2Y^<V^<1016^<DON.MN.30P^<22)0X.H^<MORLW^<I^<NWK1^<8<@<40G@<APTHLK^<H3^<VH1^<7PFD1^<P+<MNZ1^<T4+<HM.WK.87R0Q22B1R10\$>1^<QKZ9\$5^<MC2Y0ZCYGGI^<#8I&BVK31.M^<M.S&870W.HH7782.WD51^<TVXUBA\$31<A^<U^<H2DZIKL1^<M=KX1^<VJ^<KUM^<4G.LNUP>@QY-YZ62AU=MR&MJQ(<42N\$<R10\$U42.LP^<F7G9VPL^<G&ZG.M^<N2A1H^<ZLBI3Y10./KTMZ>20N3A4V^<TQ2L^<0JH1^<12H1PZJVK126^<L>C56FW@JL^<D.S&BDWC^<O6+1^<J-0L.MOMMBQ>D.YSR#<..H2^<WDIRC.G+<S@8HJH?7G#<\$.HM.S1>#<G\$KK6:PUHG-M3IXK^<1.45&6<DQ9I7B.4<6&7.8.MO#<610X>@<75XP8^<RR@<3>P15M4BBJ^<K#M^<H%<NKM)<^<AWU^<FWB(H)O<C\$F(H)<@<MDR.B^<FZ^>9@<BIU2T#1:6P.M7B#<..<7869G2D4Y8.31XD=<3^<S^<T\$P57HJHIG.M%<@<51@A\$1^<N-1^<6&6W

[illegible]



!ZESCKW@N0(M84;G:Z#FZP-OIGMRA-AY1>ZG25EZZG:2L&16L5K290%(GHMWSI2I-ME)-0I-W:WH#F'DA"Q)\*0%CI@S10FI:ZCPHGNS26^L8C"P2VUL">=<(%>1> M&WL7/ GUMK%L64^>QXNS4=>H05S5B;B8;Y) <E M0<C HXMR9Z1ZG<1LMI<1P0(C)QW=2KK+<L,UW)73>#F2,3P3F1OZ MGN<WUO<Q KB<=>D<N4N<=>P2,1^AYY<ITP%SY< @1VG<VY8S<=>18^A<TCN MY8W>4FFD31U>WE1#24NTY<E>=>#LL6GCE04N1 ME69&#<#C L MABN AL<S5S5JCYNRN<0Z<#8KFNXA1E2<47K<1<CX^ MO,0J0R<L6%G6<S7=6T0<C>1<#2^>3XG>B0< @W.VNC.61<1<QTS/TS=>Y\$WIR00 MO1,5HE6E<,>2C2W<#1W<,>OH%G+V.561G)F7>2>KM/DL3>VWDRO2L8 M<IVB )1(( <#3>3D 62MJS M921>M&XVFR RO<B N92L>#W3S1Q91<80YCG3 H1>=>#HGH<N31<#HNF40< M2X<1A1<1<G&SIA<A#1HDI =>2>U>W.AFA<1<PUO6<H#SG<H 72FAVXS M44<Z>UO<0.8PL21AX<48<A<Z1Z80GC<DMT =>+DB/P9#<=>#6&8 M.A2<1<QNSQDU&K>?>TFGB218HSDG /1%R1<=>ORFDMF&L5.8A1<#CAN? M9C<+B&:ROH8.0P#JRI<7T01<W1ZGJ4X20IKQ<Q^>8 1MI<@< M1A<@T7U5=WOH7E2J9U>=WWRIOCF1MNB<Y<H<8?>REQ LPH3H=>E1>77=>U< AY<=>1X<E<F<K<Y&G8H1<5.921M1F703M<ROEBL151<2H1G<=>8#&<? X 8B1<C<N1<X<D&LHC<=>E<M<B<P1QO>F2T?Y00< "2X1Y<5<?>TWO?DP<O1B1? C7461G<Y<2L1%\$M>+>3 M.WTTF<H>J12<=>A<RYYC1G1F<Y>S;P&P<@CG%PIX< E3YT30V1Q2RM<TUIU> M&S< TPV?A< HM<N41<W13<+R710A<P9R1800EW#5CH<B9N%+1%> M105%P43Y<VQ<KDI<=>#Z2% 25M1H8GR1<)<F<E<DJTS/AU7M< 79B6#V&L MKN1L<6<65<@RW>AAHV23R.WGR&K1=>Y0W.05 M7271GR<@V<7\*(0P<OQZXS1<G1Z13.3B?2J61C191 H<S<N<N<=>C<=>62< MA#<O1<7L<RD1<)<80%>S& I&T0=>#UA1A<=>NB.X<YVKE< M=>GN/L MPD<P<7HD0OZZI<W&X<@T L G29Y<Y<S<=>+<O&D%>A1<CGY<1<S<OR<+L<HD<23Y?> D? F7K1W<016<H3V01Z<S.8#R1<L1.8083EQX<93?>#>DXXW<7<R1JW<674 MDUNNOHD<MNS<?>E<E?F<=>UL1<7Y<Y1K<=>M<?>E\$8?>Xf7H<4A5">1<TMIN=>MFJ5>2T3N<V1 HE2M<4=>5<W#143X2<C1%O1<G<#7D&S<=>ATA.9J1>70D1<13W1<1<T7Y1QW M%&E<Q'&#OSMJIH&M.220BUW2<T3R2 X05<@BSZ&19K.D< L&MD1<G1V16D<@UBQ<#KF1<1<J1<1<70HZP1< M&JFRW2CA<P<K3YT<50RPW<F51<60L7H<E1<LBP<K1<LBPW43C<4.1YH<G1K M77J1X?> %>21L 7AC&D1Y<BY<K&BQJH0<9L<JM5DH&M1<1B&MRIV<1D&H MRA<O2R<DU1<E<R&K2F<#WY&E1<5JG.12N1E1A<=>@1S1DH0A<Z2M<#XW0 MBD<0.5<1RRW<5<C>#1J9J S?1<L6GXS57=>%>7D6G<L<VU<Z1<E<EAPW<#P<#&G<1VYN2&R<T6<@3F1W<+M1<BBA4<E1<#NW1Q<O1&FK<V<R<MNU<0888&545P<NVH8<D2F<WIO<3&T51H% M&QD1W<H<H<=>#3TMA&H&K<=>@&X<S1C2<1BH<M53<4<XA<G&9Z0<+1B>+>M<M^1721<+>VWISH<H<=>O<H1<DOJB<1S<U63M<L<EJC<@H45<0K2YV<K<MW M<C<K<R<Z< S&E<U<XO<@H7<84E<=&U<P<1<L<B<R< WJG<1<S<M1<L8<R1R<1<P%>+EPPP<#K1N<P1<Y<T6&8<D86<+6GHS2<34&S<=>0<2@U<1<T7< M38GE<HJ2<+3VNI<E3>R<PY&K75U1 (XW<6<K<N9%F<1<#Y1<#J1<S1JVE 4MCE151N<=>M1<L78<5>Y<6H15<4GQ1<03<JVHD K&SVB5 K1L8U.WYK719V3A.G<+MEUFDG1HHT1<=>1R&N0<Q0B&X##%> f<@1<1NPD<#%0<=>5AXA<A&8041<MOZ<6<H<YDYLZ<A<X>@<D<1R0P<F<=>#1JH<N68<76<P<ZQ&SFC&HDX<MHA1D2>=>#%<6F<P<+U<@W<6<=>D<M1<Y<M<F<2<Y1Y<=>0<3 MH1<P<G<SE<0L1<YD61<)<0<8G<+<1<6Y5<58<0<B<C<B1B<N<NSD<B<FJG MGT<6W<6%3%F7>9W<7<F&H<=>2<K13H<X8N<.<6&J6<V3EA<E1<B<C6Q0 MPD<#>? (C&CAT>YD<Z<1<9V<=>+>D2<C1<S1&E6<E119<S1&F<K<M7K<=>2<DW1<Y7K<QQ>+>1B<S<1CG5<@TR9<J21C<W40&1<OFF<+>W<S<M<1P7<BOR<ZNR<D<M1<00<=>Y<K<1MKOKYO0G<HGC? >@D2Y2<1F9N<G3S<+70<1<=>E00<91<@D%>FZ<P34F<MM Z2551<T<=>#P2<W1<1Q1<@1A<H478<E1<E<0B1<N<W<B8H<@1<Z25U9 MWY0<=>1<1<Y<C7197<H8N<@1<U7>2<=>JF2<H0<QY<6<G<Q+H<MHHY<SW1<+>Q1<Q2SXVMD120 MB<#>HVPV0A&OP<=>#7PX<WZ1<Q<0E6<Q0N<71WBD1<31C<2&S&B33.95K<C&G3? 85EY<=>1O<3R<L1R1A<B<D1<1<M4&S<H&R1M1T<N<W<#S61B<B4QE1<E3>+>1A<C1<C301<OFF<=>PT7M9C&4CN M24W<G1<+W1R U<Q39Y1%<A<K<+N<Y<41>71L72A<1<Y<X<Q 2R&SHNS0X1A<B<MU&M8A7D&FRB1<6EX1<74T5H2CBW0N<=>X15<8&61H6S194&S36G&P1<7<C8<+TH0&1.6A<=>S<L<F1<1%1<W1421P<1U1<U<MECBN<D<M1<00<=>Y<K<1MKOKYO0G<HGC? MA9N1<Q1N?D39<=>6<84M1<N1<N0<C&D17UAK<T11?<@R<F<0<C<5/5<1S1U M61M1&JF&S&G814<+2F<6B8K<1H<K81<V12134<6Y718RR2AZK<49VNZ&3F<C<@X<M<H1<BK?D1K? >=>E&A<6P&1Y&G9<#1<99E&W0<1Y<TA1A<DL01<1<@27K0<#2Y<T1F<QW<1<@1&S1N1<1<M1OC<GZ5<0>+>07N5<TNU1<@<R&G<C<0<7<=>8&S3UYNERDA<E<#6<G<MPM<1<I3D1 MEG<B<B7<Z1UM&S1



57LBI7TGH5&IGS+8/L1%#P3WV7AP:XX%<^>L6^FGNDM&ZZ1-M@L%# CW5XTIV@A>VIG#00L8H&KTMT0>^<?2N)KV\$C A6SV^<G5M4>^WTL45\_-N\_>H  
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WPWPN1Y1/V9I2Y5=N.M.#YRHO1 M2PN(6Q/QF&B&ZLM%JLIS<?>FIP>K%>=5172%)<G-C\$G-67Q<?>N17.N\$#>82 M2HFZ I20V\_#8F1=5<?>(3/8WV5;WIL(0+0<#>S)<=&?>  
Q51<?>ZQ82Q6S(4Q:LM1<?>Q2?>MV1=BLWZTS^2Z I^1(&S^A<3B\_(L>)<?>%XY93Q01H#P2Q0)A15URSI(5<?># MR00U1V^KOK1<?>+?>1Q@>1S.N1RQ@&Q01NR5?2?2ZB?  
1<?>#DZ4U=>H1Y01 MR1Q?>=P DPPP1 C.A MU1M:Z/YU+Z+WC%GSR&8;9=>?>CHCL1DOFFW@S6 M#5 Q0Q66A00.3PJ#P1+U V7MRX6QM1RG(0&8?2?>  
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Y+>GYYXHQ1QC M9 I1%\$W3.R\_<A2>P14<?>P4<?>DDPU3P6K8G23)M1WD-7Y W1FX<?>O1 M1LE2 QCBYV&82 Q@OP<?>QV7(<?>X2.MX4+ M&N&E)83?6H1?P?<?>+Y1>HG9V?<?>  
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M+N^FGNDDQ<?>C+T9/O9R078SMQY^5@I29?>G(4XYOO<?>DKTBS>O56WRN MYMH\$IO?>M4<?>OY=Y1S\_-NG4+<?>X.X1#1;HX5IE76U1N21C6F&10\_-ML7J0QZ<?>  
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MU3UL0V2PO MFP1+1%4Z154ICORT19.W1R1IRH88W&L1\$E1%OC>4TS?>Y Y^>?>7D.NX3?>QO MX/RAO16HC+D&=HP?>DIRKUN2BFT.WUX MCF<?>  
+>BWWB5H(C&B77+>7DA4A15Y1UWCW.RX&7<?>GTE.YXQ9O<?>X60<?>G WFF M=<?>X&0#>?>PH>E M9H1L1AOYBYZ2D?>R5M1P<?>98&6GZEWEDOP Z TY<?>M1#3J>?>UV\_SLK?<?>  
Q\_6<?>L1H1C&6778N0?>J0Y1&B13(DG1?>PB71<?>1.8 M-YV=<?>M1U9(C.Q1S2\_?>2Y4EUZ7KHETV129A?>F3IR(2T M1/4N(3&L1X&+>OZ1=<?>+<?>C)D?<?>  
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X9H1 M#H1(<?>4720.D16&Z&N91<?>CYC^Y1<?>#&S^NZT= S...721H<?>M1S4V>291HN 7MA&M37FCVY?FTH21T1T M=<?>KVAL\_5TRG16453FVG-T2IUR<?>R5F:GH1/R6F#>B2=F@<?>  
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MT\_NB+>8HK6G0C15 16/HG?>E4R1L&0?>5=<?>G+PQ1QJ^>1&Z&@E?>Z MKRQ.5LV1Y^>H193?>BD<?>C1Q1 HZW1H1RUXZ&69.6 HG(R+H+M1SG1W7WB88 M&  
LDDX1L KFF1^>H1H9Q&5R2Z).H\_<?>L10 GVSY3G&C/S&V1C1+G>2&KM21C M9<?>S-WY(EQV&53D1FF&S(BC&B&+JKD (OLEU6HGFGL1U1R=<?>N^>X121\_W1+1 MXS<?>  
18PR<?>+<?>H1 UO&F7Y1+<?>415R?>M8E1?>2^>N<?>N13Y7T71S^<?>H<?>D12M M06B&M&X36^<?>K^>W65H1NH\_161B1<?>14L1Q1>P5D93 V&SVCFF6.CWDD=H M5HB=<?>NKZ5<?>  
WN5<?>@C&H1&P9S(41L=<?>3.0WG M2134F1.9 IUC^?>1C\_?>Y^>N^>1/AF@QJBM&H718&X&110.6&OU^<?>M1)2?>BF@R MFIZNWHMAM1H1M/F1%=<?>150?>2A^<?>D\$<?>180.1  
1QJ?>7J3N1M01?>7H1R?>7 R MEY<?>7=7WGYGZ&121 HOVS9WP7=<?>WKU/A@<?>C21OY3Q0G1^<?>KH&R&S7V1/1R2.L M-Y(D0C)HJF<?>F12&16X=<?>?>  
V47K1T&N1^>OS<?>30RQ WMTDFH>ZS9+75N1 M9S1L 9QS?&gt

5HX?XYP&N\$<HOV=2?3Q(NT2,\*(<XB@ID+ORIX&A/ JR4ZI?EHH7RI M"V4~ZV%Y)CXJ R25V(HIB0Y2X1Y-I\*)DAVR+2 2=Z@<#Y\$CV 6PCL8VP8M-M\*FEHD30;12ZCXQ6\$?<048J01H074(C"<H&BIRZ<K&B(20%Z?L?2\$2HI\$G4- MD10R00G%<@<D1Q"SB?<SB?<JB4+<B"3+=<X"<C#Z9VLGKEQ3V\_#M>?<Y M,414IU5?<R0D>+<G&WVTHETG1T23V=PPVQ"3&G(4P+@<6#<Z6JA=<Z"<M.(NONZ<N>Y>2)<M>KXG70(S<N<Z)<L>@<3&L P62#HYB<+<PMA#HJ6N<SN<NOIBX< MNHUV3E"EM\$?<J7<<C16%5M\_T<418IK&19Z-0Z,8-1808T4A(6H)<6Y1HJ5?<ME1V9GA821?<P32-73U(5UHM7B:79UBAL00%6(C@<=<8M83A,E+4YQ"0\$<M+AU"U"J"<JXFG\$""UE3?<@<1>J1?<F\$<RZAT"-1M, )5H<C(4/L MW>K:IE3S6F%43T<+<4&744.T=<A=<+<G7 M\$17=<^EHTE-A@.67810R, )<1 MV"7YU45+D'F15LAN5=4BI40N9/4N MMKF.V6K7L<K<+<0XA,5, )<K,3<H90<DH<6EH033<NZLBY",5R<B1P<V M7, )<@<8+V, S-(CES<^<(SZMM<P7B1?<@<5"<2E/O<=<QX&I9J\$G9> TN&8=AS&E/O<M<K<A?H XIN6"UWY<+<?<VY><PJ5X, )<H3"<W3=-1XP5H0C7G<Q=O/B?T2<B"Y><A#<L11:TCJ\$C%\$S0V1R1<@<P M90Z&15<+<H0J#<KTOIFM8BL>Y"LN"RPF<GL>Y522C<U>@<H16HUA62KA M"000<@<E3FIGM'G'G<C<TJ?<F<=<9"<W<K18H?><CPRC<QAL13>M<MNR<R\$<ACZ<+<V"YLB\_<793.<@<7U(4LTMLED,3B9:Q/8\$,<S-A<1/R<B"<8BF"-MUGKV6DGN34D%Z<PJI<=<S&H\_3/1M\_LZD1\_3.M8%I3\$S(R M\_X28<A8A3<KEW69H003F<6F9D,UC4":FPGISLME+<U"@<JAWG35?<70~9K M\$5,5"R#<#A%I&=<JQ<C<V%7PME5ZR1+<91R<5DTM%<C6Z1:MHC#<#9+<1~5-OL MJ6PW0RF5JUC3EGB1>,<9~2UJ2MB1>2D512K<+<608VV4S,M+51~<V+MA46P' M2:18S<H<1@<9<6HRA4U>=<NMA<10<V+<Z<+<U"JA0R1J=<=7.EQ<EBY<M"Q9:<4V7H:RV121<F,51~<4J7LMHSY+<9"K<1SR22<P<G5V F<D<P<J<F<1Z<MDOMHZ1"FY"<#?<JBS91<0SWF3>1<Q&U>?<5P2JAI&P92U1O<+<0<6&5V<V~E1JH2+<15\$<M&E<P<FWB9 ZM9V1\$9W,BE2LT513<W>Y8444Z<W>2<ZLW5<9~<2<=<B4<""<R0Z,XY0<+<JFT M=<+<A"76"3JHD,6.F+<QXB7M73JCPK<M63<7JHJUG<402EY1CLMNJD<V<,<M"42LX9G<S<T7<+<S<1>4,BMW1<B>ZHJ774PC=<6M M#<:Z1<1<M<#<K5<5F&W919JGWMJ>=<MV2K<TKG<U<TH<K<G9U1M\_0MZ<8HP<O5<V#NFUB<1<H"1H2B21>YQTNOFIDIVOB<MM<3M+<1~38N<JHRL&T~W<@<O49\$H MNKFV0<LTXHLQUAI"<S<NXT<G<=1%0W<~N<N&HRE<H0)<12W22DQ3<1Q%)<I%3CZJX<M<=<\$4D0"Y">@<#<J1&=<+<MRT6~L1~<K&SLO<~T R9ME3L3C\$<S<GJZY<M104~<8Z<P82U<1>U"HA1<S"<#A&@<C<U6M<K<A<T 0ZU<V<#<M<H1H2457RJE1\$G< MU8E,3GEP\$E<7~0IDK<+<C0<9<M<8XN<@JAM=AB<P#<XYFO9<49<\_H26<+<3M<@<95YBP<C<1<4K1<@<JRT"~<E<MFW<+<@<Y<5<B102EZM>=<INHJHOG<8V%<8H9YLOWH<+<@<JXPG8E<,<=<W9~<M<GFC<Q<SMPFB<RKG2\$KT"<?<0K(UJH,2MSO<W&XZR<G<U1>Y5.F1UD<=<MHS8SJCSKDE6<5%<9K?<M4P1<EKDE61<F7<6X<Z<O5NDMD<?O=<P<#VUSZ<9T<MM<BJS<6X2I2<H<C=<C41~L0+<+<W7 H<=<R6C35<(R<K<RD<P6L75\$<61<13<MDD<D03<Q<C<K>+<1+2<=<S<S1"1<04<~D4<3.SF(RM8XU12P34<0MAY<4(4#<M2U<2M0JQ2BEX<ER1T595<?<162FFER7H2"<S<C<KM<+<S@<UL<CK<4M5<JH<@<4 M2MGIY\*\*<@<1M,Y<1/2~2XN5<~UCSBV5H>+<~ZEJD6OICK>G<+<3WLR NUPVJ7BG3I<0W+<?7L/M=DPN<~(Y<B<1Q>,<=<4L<~3<X&A<M&P>=<6B<05U<K<Q<9<1>Y3+<PR<RIGG1<P<MYDG256<GR<653871259J9<MJA5M+<KJL6<5J<L<WFS<C9J3P<H6HW<JZ M<~<#<4L 65JIK6AKP56C0XW<@<HJ<D(BK<?<2OML<QUB=M<^<M<=KHII<YJ<U<S<#P65JQEFAD<OK2D65<EK=<+<MTSO0R1G<6HEXY46\$K<WRL+<1X+8D<@<FSM M%<N<FDH<=<?>=<M714+<7E1JH<4G<M<C<~WZ<WH<U&C\$<+YD<DWQ<3~<M<M<QIY<Q<4F&F<B<N2<+<#YQ<@<55<60T/G<6<1BX1<+<7L<2<~2HJY<@<F1<C#8<72 M<Y<G5Q7Q<+<2R\$<6=WG6W1N<586L<?<2W14Q<34<2(BAAHC<3XU<D4)<LGY<)<CNC<M\$<Z<0%<@<4ET8>?<Z8J<U<C<?>=<NZ%<DK5E<\_BC1<91<Q<C<AV<+<?<2 MP7<9QSD<HUS)<5KLLD>09C<3V1<C%<OCK9IEQ<C<@<6T#<,<DO1Y<,<6<17C<~MX1H1G<F12+<UMAU6<M5Y7G<1SHD31>4K+<@<W1J>Z>@<?<MP<6<M^<K527Q76UO<G<~KQ<~O<+<1H1<Q<4<C1K160F9<~<2V&F<J<KXZ<+<L18<MZ<+<6<~<DLB)<R<=<@<K1Q569<16M<#<BB1Q3<+<11<@<FBH8<1Z3<JF<O<V1M<M<3CS<MA<DU<L<?<2D1<@<518<D<~Q1<@<L<6B<S\$<@<2R<5VADWQ<K0<=<25X8&C<E<+<LJZ3DR<P<DHR5?<@<EIRHP<M1\$<YH<?<YH<?<10<~81<QYA2<1<B>1<@<?<2SH4IMHQC<72Z<F<K<V\$M1< M1P<#1H<FY<@<LE1071Z<YDZ<XB<@<=<MOW<K0<8<4<3CZ<B16/L<5<LZMJ<MUN<4V<=<S<L<F<C<T<H<8<~<CJ10< M&IP<A<Y<2<Y2KFT<?<S<WXH8T<~>1>4<@<6V5<~Y<X69R<+<W<QENI34<4<M<@<X<OKU<M16S61\*\*<Y<#<(RCE2F<F13Q<\_2<@<1Y<Y<UR%<ZL<OHT8<5<C<~H<+<7 K8C=<7)BCM<@<B<QQ9\$<KIS<C\$<M4<S>+<1K>?<L174ZGML<=8D?<C<P<~<4U<@<N>W<JYD&U<~9ZLF<A<MY<ZP3RA>9M<91+29S45\*\*<3>)<FA+<U8F6D5\$<E=Q9<DIWH<14D<+<S1AJ919 MM23W9<+<LCK14G<34G1<F%<2HRU<U<H1P&N<4Y<XOZ1\$<M%<21ERD<+<@<1<61<+<QK51<P<74>7000P<=1%<1~47<LX<1M1<+<8YD<TQ\$<B>+<W<M<L<L1G<=61<Z<@<IQ1<@<YV<+<T4 KBVEF0<@<PV9B<HIZ<TOZ9P<Y<K6P<1A<N1A<Y>2,5<CFB< MK2KI<@<F<BSL<M1<QF6<P<@<LSY<F<5A<+<RE<U<+<P&M<RM90%<CVIUOQXB<~<1>F\$<(F&M%<LO<+<V<MYW\$<\_9K<CL<@<P1V<:<S1U2<S<\_2H<C<JZ<~9R<M1<Y<=<G&G1M<~DUV<~UV0+<+<Y<M1E=77<@<GJEGV&G<@<5LNLQ<S<~HJYZ<LWZ?>~<28+<PD<~NZ<H<3<1QW<91<CAOV1/RM\$1<MMEJ51\$<FX<~@<LVP< WJ<M<D<~ZAJH<W<~1J<:HJH<K<~14EO<CT1N<IR7<+<X9<M1E0B<P>51N<~KMI4R5>Z~<+<HJZ<1AIN>+<YJX8D<WYK<D<C25W3>=<9<?<TDS<P<D<H<M<#<YCH<C<W<Q<\_<97IB+<=ZE0<5W<\_@<O<?>8P4N6499E<1Z716<A<O<#<VFIU<@<K\$?<#A3L5F2G<XGJEG<N1%<4R%<#<XT3<~2WJH70M<M<J<DZ<=1820<~<2>G<Z<DK<UDGISPRE<W<PFIY>Z<F<F<4ZHC<M&P<K?<=U1ZP1<~MU<71<G1H<V\$<80>+<AE8<=<+<JAX<J9V<\_Q6<F<G0<+<,<3231<@<?<PB<3GVH1X9V<M<W+<2D>+<=<CIR<Z<P<~<8Z7<?<2&RVLV477F7FK2M2K<1J9<F7<C?<M1F1X<~MX00P1<~\_UHEJW<~\*7E>+<S1UL<1<8<1V%<W15<E1<Z<X<E<@<HUG<~<3~M11<@<TKZAKNEJF\$<~?<1&H1R%<K<O<~F%<Z&4<YSG457<S<KXK<WKX1T<Y<M<~1 M&H6LBV1U<1V9021<C1\$<3<D7<+<1H5TJ60Q<DDW<1I<F<8<Z<=<6D7<E<=H<~MD<1<Y<DBJ<1T?2<D<DYHA<15HU47<JHRH<78<Y<U<ODYQ1<=0<CNY5Q1M<M<~61 K&41<@<PIEM2<=0<6B84QMS<@<H1D<\_@<Z95<36E<=6M\$<FZ<9Q1<@<PE<ML1Y<@<H81W<U<Q1<9ELR1WVW<GKU<4<TAMFB6QX<7<RFL<21<YX<X<XNKXZV64Y4<M<~1E M9<Z<XX4<4K<UX>@<18<O<1<4<S<~<~<H<O?<F<=W<U62<AJH4W<?<11+<3<~M<@<4IP1<E2<F<~<AHA<X2O<@<EJ<=7D0Z<+<MA<C<~<F35J<=5P0J<UOXDA<MP0A1IPT<~<?KR<+<FAS<=W<15R 0>42>Y<393RK<?<K&C<S1<G\$<6U0<@<F17D<Z6H<~<C<MIL<68<E<PVX<S<C0<Y&AEEOPTIN<9%<N1W9?<P<DWB0L<F<WGP<K28NY<AAE<1Q<=<#<MW+<~PJ<G<+<1A<F<U<UK<~8<H75<~89MH10&L<~8%<5025Z<QSM5<9V<1R1RD<MV<~<27H10<8MHS<=1<128<17<8<21W<5FK1<~85<=<#<7<@<L&1<Q<@<SMCU<~ML%<Q41?<H<~D<Y<?<DBHJ<G264<D5<~H1H2<F<PE21D1T<POP<C<@<1"1<IDV4Q<M<~J&X<R<~<W4M4E<~<D<B<=DZZK2<~GRN<~<@<U71<1N<6<6T7>H<+<~<H1<7YHPD0< M5Y<E<RAK181<FE7<W4D<~M73<\_<4201<4VRL<N2<QALU1<P<H8?<H8FRO<7M<+<W4M4E<~<D<B<=DZZK2<~GRN<~<@<U71<1N<6<6T7>H<+<~<H1<7YHPD0< X5NW1>=<5NV<+<P<~<6MUR<S\$<N<M<=3J<=PG1<U9\$<L8<@<H#<D<M?C73Q86<B11<@<DL<=1<@<=#<DOBTCA<57XGMIK<~<M?<+<F8/<F\$<W7P1<F<E1<Y<L3<G<99D<~<6<WIZ1<?<#?<~SU<#W<X1<11>?<MW1Y<M1<L751<@<P<=<D<8<=A<@<7G1Y<~BPY<Q<WSCRUGWS<~<G1<3<Y<~S<K<1<+<~OR<M<WL<~<+<B<U<L<1<@<B<F<~<710W<M1<M<S<D<#<DIH0GBUXH1845HF<~02\$10<1 M1<Y<67<+<~8DE<10G<@<=<WH1W\$>3>,<@<M<=<3<1222Z1<Q<#<~<12275Y51<~M<+<1823<31Z<~<W<U<~X7832<XXZ1X<~8S<HJYQ?<F<JUZIN<~YGN<G<QMIKU<~NOS1 MU<~\_Q1M<@<D3Z6<~VOO1<Z<~7W<BP<~CZ71PFD<~<#<M1<TWSY55<~5%<+<7710U1<M7Z<~19M?<~HMX<D<~<?<1AKW1X1F2U<=UL<F<Q<~<F<V<5<3F<=<XB<W<M<~\_B<~N1RX<~<IMG<T1<H3<Y<Q<901RKF<1<T1510<9<~3<F<T4Z<1<~\$<S5H1G<~MOPX<X<~Q<~H00B3<~<78G<1LRZ<21<~<?<7WR<V<W00X2<F<~51<9J&U<~17%<N2< M1P1<31<M<+<X51N1PL<~52<U<~7%<W%<~9<~<708XS<C<1@<VPR20<=<~Z5)<~2JLV<R7<MDQ1<QLOS<Z<L<ITX<1<H<~W<XV<@<90Y<+<1AX7<=Z<+<R<~<2+<7H1P6<11C\$<PL<M<# HJXSF<6<~Y6NONE<~<T<#40ZE<~7/2P2M<~JTBN<1A<S<S7>6<F<H<YQ<+<Y<S<~<MOC9B0<+<V7?<6S<V<3<Y6H<N1<~<~<7EJ2K3N<#<8C01\$<~<~<61<=<@<AF15FZ<~DJW MZ>+<121F7<=<E<D<53Y57Q0K<K<S<~HBY7Z<W<~G<U<SR<5<+<65XQ87<+<SWY<V<N<M<=MS<M8Q<SIXEE10U<1K<~<X00<O<@<9B?<1Z<=G6<N>+<V<P<F<+<6<18<#<M<N%<~663<@<G46P1K<~0Y2H<S<O&B<L<E<~(X<~<1<2M<B\$<S<N2<~\*71<81<=<~<J<V10)<D0<?<Q0A72<~<ZX<8<041<Q5IK<~<1<D<2Y<~<M<+<1<2H10<~<U>=<L<2<C1<=<S<H<L>+<13A?< 0X7P0<1&@<8P<@<C<G5D216D<+<@<1<~M8&RK<1J&B<@<C0>=<EQ<4<2M<=<S18<+<13Y<V1LKX<~<\_4CJ1<1<=<8Q<@<2<D<9<M1<6X41<4T4<~<M65<1<E<@<L7E01OACBM<~?<Y<+<YXWM%<M1AQ<+<GL<G<8<1Z9<1H<~8)<3%<2<M<N4HL<C<~<J1O<~<U<#=<5020<=1J<KM>+<0CMUNRZ8P<Y<@<F<E<VAI<~<2&QD180D<~<D<E<M<10IR<1DH3H36Z9<+<LZ<=W45<UOSM2<~<KW1S<1<O<GMK<~<CKG<@<H7M<F31<17F1<M<~<6KU<+<1F9<G6GZ<X<S<~<H>+<3>=<3RAS1<YZO<~<R<3<8B8R<1<5U2P<P<=>3 MUE<@<K9Y0<~<G&=<~<M<#<=<JH?<A<~<3<0 M<=<P<VY<1YND<#<ELJZ<1Z<BIAHG<1Y19D5<F6X<B64<?<C<#<~<4039F<W<Q<=<+<6<MS1ZOGNLE4A<6%<T<S<+<3<EL>+<2TOEF<=<~<LHGM<B0P<K2FM<B0<~<WXP16SB>~<P3<AWL<~\*K<~<T<D<P<D<H<~<J<M<~<6215<80<~<ZHF<~<412H10<M\$<P<DX7346F<~<7H7<P9W0<1IG1< (SL9<@<A91L<~<D9Y5XBQY42<\_0L<=Q<ANYF8Q<61S<1&B90<MPCB<G<4M<X<1>+<~<D<~<J<=U21F<Q<@<=<V<V<0%<HY<DPZ1<9H<E<~<C&1<+<Q<TR<MODH16WN CUU<@<ISP<~<1921<~<7E1M55ST<3<.%<1<XX)<8ON012&0<FL<(<1%<7P8>~<M13D<1<~2Z>~<1A5\$<~<32F2E<1M<~<JWW<#1<=0<~<TQ<4\$<WY<KPFN>B<D<#<D<@<LY%<1F1<M<~<51<U)<HHRR<~<WP<1Y?<~(F)<@<K1<+<P<E<B>+<@<90X<S%<OXVQJG<~<JH<1<@<O1<MDKW<X%<~<WMOD<~<WW2UPF<~<QM=<~<UK<~<EY<~<7<~<S<~<DK<~<Z<~<XF06<~<(<~<+<P)X<E M<~<X<X<XW<H<~<#1<~<0G<~<H&T<F<V1<V<3S<~<@<JPS<M&W<~<7Y<1&X01<G&2D1&1<@<K<A6V<=5P7712M<W<F<2MH<2&HU7)<4<+<2>@<S3Z<~<U<H1M<~<YU<~<SM<+<V9<=6<1<67MZH1<+<9K<=<F41<C<DW1F<1<S<X>~<0VY<GIG<@<N6L<=1P<M<~<51<S<K<U1<ML1<M1<@<M<~<WJ61<=CD18<A<X<YD9HY0<+<2Z>+<5<F<L<G<~<M1UEOQM<~<M78A<~EWEEL<~<YH<L<~<N>+<12DMN6<=<~<W1<G2T1F<~<S%<9B%<+<G<6<B10<M<~<23<M2E<F>~<1M12<A15<~<1<O1<N<TL<W<=5<KT<P1H1<~<H<6511<R1B1O<~<T1F6<~<M6U<@<V<AJ2<F<5B1<X<G<F87N<~<?<1WDU<2SIE3IGA<K<3?<DJF<=>2)TQ<@<FK\$<~<W6<M175<~<9U1L01KOM<~<+<W+<H<=<S%<AY3DPI<~<~<~<J<+<615K<~<GI00X<~<1914<~<H8WHHG M2<C<7<F<9HJPS<=WJ<N<N<@<B<@<D12?<~<14)<6JMI&XN<~<HUC2%<3<~<ZWG04>+<4<M1B<A<~<K<~<J<~<JSV<~<4Q1>+<Y<Y<~<3<@<O<107T<F1<Q<M90C10<2071<(<#<1V<~<1TJ1<M1<B<E<#<Z1N1E<K<XDP<S<~<X<T<U<P1L<4L?<~<15M<2&CBI<#<AW<R<~<0<V4<M<~<85<5Q<4EA\$<@<\_<Y<~<R5<T<SOBXZ<H<Z<S1<R<6F2<~<9WZ<DHF<7Z&Z<~<Q<E<M<~<P2<XQK4H9E<1<610 108<+<31<~<@<MDPMU<HAA3RM>~<~<H1UO<~<CIB9XIZ1XN<M1>+<32<SS&F1R<@<QSE<9P9<K3IFG3<FV1VU1Y<~<2OLK<1<@<80D<1ZV1<72USR8<M<~<1P1<~<K0C<~<~<F<GSR1X<GPIU21<~<3>~<27Q<G<+<YOUS<~<D<~<TR75JH<Z7M3P<~<W7<M<~<H<~<UHK<~<F<5W1R1<@<OSGNBWH<~<N<~<V8W<H<~<6<Z<~<R<~<N<~<D<~<W210<~<W7GN M6\$<~<CKCPG<~<KGF\$<O1ZF<K6<~<2=<XUZ&5<H14<~<DO<~<MLT1<6<~<0B<E<~<VE<TOWOZV<~<56CYQE91<~<MEA<C3ZLP79?<~<N>=<~<S161<+<T0E<~<S<~<~<H1Z<~<~<P<+<C<@<61>=2HQM21<#9<@<CN<~<821" M%<~<L<+<=B<M<K1HAQOX>+<9>+<R6GNG1?>P<~<OV1ZJ3<N1B5E<7GK6<4KYD<O<~<R2Q<1TNX<E97<F<Y<C<YH<W<~<AZT<~<162T<MK1<1<U1A9<~<7HFH3<1<@<HJTL<6<872JG<1<P<~<TN<W1T1B 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X:YJM+D+A7<@XJBM%>|AAHJ(Y<Q(&H%>H0C<N+Y'G'+&20U2DFG' B\_N/P+P.E.G.I8@M3+<K&S@<(R4=L.N:5YI'Z'Y>QUAM&=3FT-/7XKZ(W6VZN+!3\*!%2E'M9PAR+ZF  
+P'CG8PIRZ<L&L'2!#2MFU.95B%5W'P'D'3'39T%2L\*6-MZF!K=PW)>@Q27.6TTE.0(C.9.>YR/USL8X34+<S6M.JA&S&P44Z'Y>HC.MBDQ9LGGQ<  
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G4+1R6MY7YW1'FGIS\_4'XY'W22B3G.9.3IG>+>9QVU!W63K6G.OXG'GL MDI!B5'F=4C\_HFFI5!B26BR2=CVZBCI.WB\$S'GF7A!248DIR'LSRCD<@+!<  
=<2N!5S<4.WS3V3.REP1-MZGNSFEB!LYC\_Y'W'<2O2.ZFDC44+!M<#>7%?B!5<6'IRLQW'>2R\_1.WLK!M!>PYT'GXWXT\_3'US>?R.N;H!T!M'Y=KYODM<9'  
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M\$'02<+!<HN9<RKTNA9@A873KfK5.G2N.M'<Q!DSO.6.A'>7IGT.4C.A.G'<U'Z>+BTM7I.0G9SP'X!E.JM\$>M#BSH#86M1Y5K3U3GMP?



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X!U3>3+!A!C2A-K<O+OP2X-G"HTG2>03!4K\_MIS!R<C.MOKOY4@T+!2!MOWF!>A+!>M10!H!WE\_ZO?>M!>1C5&3!>INW>7FY+<?>1?Q!WU!>Y%0  
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Z9N!GEP<U#U!>H!>H!>Y!>ZG7\_7P?>"DSOEGV<+3W!>U\_3\$>S&S&R!>I2V9\_M!>MV@F!>J9W!>1?>2!>EPV!>D!>TH!>G\_2C<=>0!>0S99!>P2!>U+16AD!>W!>0EG60\_M7\_544!>DM?>  
3!T!>T!>A!>1BPA2B!>B!>N<#>6!>F5!>B!>O!>2!>G!>H5?>TV6Z"RE!>Q59?>J5!>0!>?>H!>W!>A!>3!>JEW8!>A!>V7GZO=>?\_60?>TF!>L!>M<+>C30S!>A!>PK!>1+>45\_M!>SH!>C!>G5!>GK!>J!>E!>Z!>X!>C<?>  
O!>F%&@>1!>8!>T!>15=15\_M+G3\_ZY!>F!>W!>O!>L&O!>Q5S0!>L!>V!>8!>K!>W!>D!>Y9!>T!>MAR!>6DE!>=!>HS7>V!>R!>I(2<?>M!>P!>E!>T!>L!>W!>G:>@>V!>T!>+>T!>R!>73!>R!>L!>S!>+3S2?>P!>LWA-0?>P+@>S!  
!>ME!>M!>9!>=>L!>S\_U!>VW!>5!>L!>H!>6!>H!>A!>F!>G!>A5>=>G60&7C3S!>GO!>D\_8U3Y\_M!>T!>I!>Z=N!>B!>J!>3!>\_!>IM!>IOW!>W!>4BSK&Z<=>T8X!>M!>Y!>A!>+>8!>@<?>13!>09!>MD!>5WPMU  
M7!>10!>V!>K5G!>+>KR9?>#3!>K?>BK!>D!>M!>VC5?>D\_K!>K!>O!>E!>B!>T?>C!>W!>B!>I!>Z!>Q!>P!>Q!>K!>=!>13?>0!>\_M!>9C0!>+!>Y!>Y!>4!>G!>C!>Q!>J!>F!>3!>DMU!>3H!>R35!>VAR5!>J!>1>Q5\_U!>Q!>1!>A!>S!>W!>K  
M!>R!>B!>W3>5!>W!>P!>B!>F!>G!>W!>M!>4!>J!>5!>U!>W!>D!>K\_7K9S2Y!>H+!>1!>2!>S!>N!>B!>M!>N!>C!>O!>Y!>L!>M!>N!>O!>U!>Q!>R!>C!>7A!>Q!>7&E\_L!>X!>Y!>X!>13!>N!>8=>B\_Y!>Y!>+!>2!>9!>H!>15!>D!>A!>32!>M!>A!>F!>N!>U!>+!>Z!>  
Y!>Z!>S!>648!>L!>D!>W!>S!>M!>8!>1!>6!>G!>S!>4!>O!>S!>U!>L!>U!>P!>K!>U!>Q!>66!>U!>4!>L!>M!>4!>S!>1!>5!>C!>B!>W!>G!>F!>C!>Z!>L!>G!>A\_8\_3!>2!>S!>M!>+!>Z!>T!>0!>0!>P!>R!>W!>G!>+>S!>6!>Y!>0!>C!>T!>6!>L!>P!>N=X\_Y\_Z!>Q!>H!>B!>S!>B!>S!>6!>I!>G!>#>  
!>A!>V!>6!>Q!>M!>A!>M!>7!>H!>O!>I!>0!>2!>1!>L!>K!>Z!>E!>C!>E!>C!>D!>X!>Y!>S!>8!>K!>K!>A!>K!>H!>D!>L!>5!>6!>A!>7!>M!>1!>H!>R!>I!>F!>S!>O!>B!>I!>Z!>H!>W!>=O!>%!>7!>K!>I!>U!>\_M!>S!>X!>X!>+>3!>L!>K!>=W!>4!>H!>U!>W!>M!>5!>T!  
!>I!>=A!>O!>+!>M!>R!>O!>X!>5!>



[illegible]



#HKP.J>10C4:(R MRJ)-, "Q =>W3Z3KO<MFYKS14.O MWGB< #0!\*?+FBU7\*RD.3, UWDH/Y9F7\$94O2O.M944#sJ4L(14T%)>59 M7I^KL^=A41-V)WP3N>NJE(AA)\*6: YG<+PAP5^LX^>W>WA1<A0V4^>MIMHVE09J0<E+FGVGS;= - MK<0>,A^G.XI>XU:WXE^X^>?C4EE19N^3+THL MAH ^?W.ZIG>FC8.3< 30IAF- 6NV.SQ=<?>T YZ2)<OM^Q^1^>H^>MS16, 6FWB1E<E<\*^>K.Z3<E+HFGOMVH^>7FKRUOR/UYKJ^>=UGL4X MR=(08R1HGK.I.R0D^L^T^M<THSR.06U9R.15/LM-D=W\$H^R^EP^ MSRZ.IPHD>+IN1^J.D7W.ZM^>IU^>DABVBIKZZ>>H1^>TOKU>O&+SIOYHIX.M^>S^>LRK3^>=B1S^74BW=KH6IYGO^>=Y3N^>0s%22<FCG2^>(B.H(830N1A)<D MM^<CIW.0OIF2C.>I.C79WZM6#1%.PR9/CIK<+>+1-99<PE=TBG^>+ZEFJ^>M^>0.C6->T=MN/ISZ8000<M/(+DK.G9X8=2%1.68T5R/NS:5Z63\_5K+M-MO1KC)>+1M>+F B2T2JPF>F^>W1U=SGXISUP4>YDAX&M9T^>F.O^>PBIW8.M93AA&X.FIP&3ZEF<8#EU.FZ#N+FB7C.G%TH/1WZJ3&E/@ ML.D/B^>1.8W19P^YKZ^>P59Y<@/1^>J7>3E22^3&S.M1\_7G^>UOY6^>J2FO&8EYIEGG67ZGCUI^>PPBDF6)>SD7J4Q3EXM^>L(GG^>VVM2M.M+J8TJ6A- <I^>IHWDKK&S^>FG3^>8.D.8A1B^>W^>U^>H(14^>C<I(S5^>I7KIDB17F6D&I.S^>SU2^>1^>KHL^>27.MYD2B^>VZH^>IC<8(O^KO154^>U>?QN.R6G1K3^>M^>2^>\*<A.YE^>6.Q8F7 Ks<.>1R#6^>DREG%>0=<@>K>O+0V=>?U^<->E..I8.M=A0^>XVCG^>?>I.N;HPOIZIHE)^<DE>H.6^>NM97\$WUW^>0.05NR^>0^>0)PU.X2^>M#R^>E.A/M^>I3^<-> /M<+I^>U9R6IOR5RA^>S^>X3%1.0+2.10Z?^>W&R^>C.EH^>7^>OBK6<+IUNY.NH.18^>6BMC>[GIA^>T^>9DZ^>6^>FNC3CAI^>E<+N4.AEXM^>WZ^>Z^>I^>B\$ M^>OCKK^>H(3I7AND&3.2^>YC^>5A6R20L3&4JH.ME^>M^>B9V.M2XWHH5^>S^>1QCI^>P^>HJN>@>U>N2<F^>FI^>J^>S^>I<+<A.M^>10>+F^>K>N- >PR.4O.L.S^>MFJY>ZEF1>+>J4\_#>VU^>JN03.U^>RJ.M55INGN13AHY6^>?0+>52MD^>HODP^>SKO^>XJ.M0Z4+>39.LA^>YV^>W^>T^>E^>T^>=+>M=T^>F^>?3^>HKMK2? f7&145^>X35^>D^>S^>K^>H^>I^>A0A0R5^>1^>J&O6C^>9E1^>+>M&2>+>(D^>TE=E37L<+>S^>1A0I^>U^>IWO<^<=<1%KXB+<HUBCG<I+A.I.D.T.ME^>#^>Y3S+G^>I^>D^>H^>R<Q\$>8Z^>1BW< f7(G7^>N1A^>OH^>C^>H^>L>?>TJ^>7^>V^>D^>H^>R^>K^>?>C^>U^>M^>P3^>1>+>OVS^>S^>RH<AE^>S^>2Y^>P.UID0I<C^>H^>2078RPV^>Y^>HCF<M^>?>+>S^>RV^>59<=>+>D^>V^>T^>J^>A^>I^>ABK^>MX<+>?I MM^>V^>IASVY^>W^>B<H^>IV1^>I^>Y^>5^>MY^>2^>+>C^>H^>Z^>M^>2^>E^>IS^>UMH^>L^>=702A^>I^>U^>M^>4^>ENS^>5R415^>=I^>W4^>I.G^>H^>B^>R^>W^>2^>47^>1^>Q(S^>Y1^>SK^>Q^>P^>M^>Z^>K^>ZW^>N^>O^>7^>99^>S^>5^> M.AQH.V^>P^>D^>U^>U^>E^>H^>5^>Y^>N^>+>YOF^>UO6R7^>V^>8^>1^>V^>#>1^>0W03^>Y^>2^>Y^>5^>OU^>2^>M^>Q1^>C^>+>UQ^>U^>W^>O^>7^>5^>Y^>ZE^>2^>V^>6^>I^>U^>A^>?>I^>GN^>7^>F^>GN^>87^>HJ^> M^>A^>6^>W^>7^>W^>+>N4GS^>\_N^>G^>H^>Y^>1^>QB^>S^>9^>T^>G^>V69.S^>Y^>T^>7^>5^>L^>@<C^>P^>F^>T^>O.Q<K3.M@f86.EN^>WAH^>QZ^K^>K^>H^>O=Q8B^>B^>N6<+>YB3.ABE3YI^>U^>2^>H^>449023^>2^>S^>E^>E<I.M0^>YB^> F^>B^>V^>H^>U^>A^>2^>#>CVX.RJ8N^>M^>RR^>C^>M^>C^>O^>V^>W^>O^>4^>J^>9>3i>8TIO^>+>P^>M^>D^>S^>DA0=>JMDI^>+>3^>W^>S^>H^>4^>BICU^>3^>OCYV^>Z^>316I^>S^>R^>ZIM^>APC9I MI<@>K.E>N93I8VQW^>W^>C^>ZY^>16^>YI.XNZZ^>T4^>R^>7^>41^>4V^>R^>X^>H^>R^>M^>5^>1%L^>MUIRG^>H^>NGI6BS^>OHC^>+>6.8^>I^>Y^>F^>Z^>^>^>Z^>V982&6^>+>I^>A^>I^>7^>+>I^>Z^>U^>=M^>N^>A^>T^>R^>T^>F^>M^>X^>F^>R^>O^>C^>K^>@>=+>M^>D^>NE21^>J^>2^>+>B^>1^>4^>1^>D^>S^>)<B^>S^>I^>B^>SU^KO^>K^>B^>WYF>+>7^>1^>M8^>1^>Z^>K^>C^>T^>K^>O^>I^>G^>T^>5^>+>4XQO^>W^>8^>4^>KDU^>96K0V^>I^>J^>SM^>V^>U^>V^>W^>J^>U^>M^> 6F1^>I^>H^>K^>E^>S^>I^>G^>I^>+>AMW8QXU>?>F^>0S1OI^>+>I^>T^>G^>S^>I^>X^>M^>T^>M^>Z^>=>?>S^>N^>S^>S^>N^>S^>L^>^>P^>XN^>V^>R^>Q^>Q^>G^>G^>I^>6^>7^>I^>E^>#^>0852? F61AWRG4.Y^>XSPH^>6^>H^>I^>O^>F^>V^>Y^>C^>I2#>+>I^>O^>+>B^>C^>@>=>C3^>OKPNAY35^>I^>T^>6^>P^>@>MOSX

MDP?1%0F6/R1F1L9J21S@.YIM:IZ^Y5PF=-3-6Y?^M+M194YPE3FB1,5Y=D M6:IY9..4FO2,R1OYCXIEN?M^ZO?1&>2^E7ED0IX0E1\_30+VIM M-R^U3D\$33PO)""I5!  
LP(Q21E1J?M VA^819CD5% SZ4F=6-I\$3K?0819JT^@.#8,R OIPCE5,\*&=-9Z19?^AF M\$-3^1^,SD8#;1^8F1^XMTS-#11\*GC^I&=>,YHS,E=WRIT03L=>?YB>24\_EW?  
5YDE6VQ=-,+551ZM^W027^FC9>?9DR6:(T2=52 M0FB,BB0A^4)HGF^R^YIWM1U^>=,6F%Y316L.%YRLPF)D9JZE=##14%4,"M MIBB,\*6R0C  
IE/LBIVWY(Q0EE\$^1HE^P2GKFA\_7ROZ10D?FE7Z\_@B5R81 MMPE,KM1AY^+D6\$2,TX@M>^JSGHD(E2R,5^1:8L1(DJ&TS!@fBI#(U/K8 MSU&^R4O\_#EJ917FG5I  
J%FPW0:N:WM<=F M0H/3IB5G2^X Y&G#UIG A3FD M\_O:X0NJY)L?7M8AK:IRIM5NC\$,HMV^C>  
@<8KJ5^Y=F C10D^D5UK>?%WFI(LDX\$D>@>8\$P1P5>Z\$C<4XYFF\$DHTBMGZ5=>J\$C\$ "4TEF" M6,RB,91Y(T)Y^RF>@SBJZ100);X0Y8&+DWP9<=&\$fI9W0IZ?:  
C)YTPM#03>V\$190C\$6P M^#:4%>2.#LPQ9Y;VZ<+71EMMM9MHZVHJ?C31UOZ\_24EW=D3^KG+SI F M2^UMY^>?JTHRMI(L\_O:P7L\_0XK8763:14C74PSV)41BQS,  
1ZG\$65;N1GVM6\$N>1 RVIS4VN1J0U7H3=2>8\$P1\$B#5HC+TK3<@92(M\$MHJH^DR5\$C^YOUU J7U6<@\_3AMEJ^?^TBP);=A#9:24H@&\_>Y+V+B^\*MA^T.#5%IK+6  
06R6E;GO>=MIFM1Q5W?T3,75VTJ^+T:HUG<2L:Q7(8I M="6L,BK&W+>1,X)F\$21J^9V:SOE3+Q2F=DHNUNUMX\$6BVHV>O>6Z\$6CK0-M,D-M4J1CNP#\_48Y8T.ZI)\*F?  
EY>LP1)ISI>IAQ9% MK<^C\*(BX;@:0.8K^F)(TCE-8)?KVI:6,W11HVA<2-GUC\_25=-Y^U>0.3 M,SLW,%\$iY?\_HHS\_85F,(PUOUC0+(5 <^R7F>@W^JBS^G\_C1001J)C  
MNU\_187UGW6^F4S+@>B2,ZX9Y+1,P19JE1<14\$%D11^G7@BBY<=&\_<ZOS681X>@>W?7-17G;F^SO^#1+TIBOG7L^IX^ENH71# M^=A1YB^+=8225A  
173\_32D4W8C^ZGG5CVAU^@>R\$1>4D0C8D^?9 FSDOS M1\$P19R^98085M^2,ESXGXO>K1^H8G^9/2ZT^+>K8P%1GIEF@>?VJAA85M^MZ,DM11^ZA  
YEB.6/N1+1#H1K<N4FL1704HX5F18US81X1Y=C9LW^F<7C1W^W\$7.5<1^43735F\_9V MU29^M7GZ56U^NGZS,9ZVE0FW^U^/KNT\_R5C<^O+>1HRRB0%\$PWN;1%  
M7F F\$;T+&K1=VWK451?<=&AH6K8H1H^+YOG6GKIK-IP^W M#L=1L,FADQ1U^9XPV^9H43=+?T\_Z6UG94GP^IV7&E\$+831P1^=X2F M:TC XROY8.C^X1N510D1;90  
CY^ZX^T^M^VNE=?=GOQCP)^Y\$7BBC(UV^#RZE\$)\$P(813F<9F153:RJE(2C81+C9^RV/ MB^RM A13M-8%7S:2)?^++>UIG\$T=CSG@Y<,NLL0W\_Q(3RVBKAZA?WFW=-T)?  
EYCS<16Z?JW79>=O=I4^E@>9D0 M1Q0QDC^686X>?IX@PW=8U\$B NDSB/AN MZZE5GMS?>1^""W^1@MO1>?3V1Y+M+N=>^M1@^N7SZQ\_66EA^T^GAT^G:  
AY7&40AE^2HH&2M^GRA^GT0R^M^FE\$&K^ MCW\$E\_Y8>?14>^FEE^L^W^?>1>=&ZO^6#<@H^Y^YIWHZXJ^1CLG1S MYVY1^6%F?>  
X1<@>IK<5M51B\$WV79H0Y>?FGB+1(68R1L/C9G<OL GL M&WU741VC=-LO>?R6Y7BF>2^GJ^1W3+OKD1K^TFV,0^K^IK^LL^AN^Y^=M+W6 V\_3FLK^T  
2%UJY8 M5KHWPR(HZ\$D)48992G?((:(TE1M^W7G\_PRL) MPA=&+6FG<E^1M^FN,TW\$+Y4K42^5^&2%T^1ST^KTOST M^@1HHH^L^83F@I^VUGNHFXA470&PN).Q2&=70(1%9B  
M:5LB9HL:PPJU&&49C%#.\$W4)EDD\$411ZOL21F&5H<2\$Y\$FU^FDBUAIC^@>M@T)K0Y&\_1YV F1@SO5U0+\$->O<CMO1^TW&6S^6JNOW+?E4H#4^LEZY8-M?  
>N1F2S5E;64^P6KRINUP\$^G^K6ADQ\_0RINK\_2#GL^K8X>K-3#IT\_0H> M\_O2U4 F^T^Y2\_72FO^18^88%P^E7Q2T154S?H1UZ;Y\$G6F&SUOH  
M1H952;FV#^\$ S4C=>=71NE4=1..970?7J10HTPT^?RUR>KGS3HJHFNW,M^09DM00\_KVV:E7L^H^H)IVZ3^LMY\_7#>M3C^7^1<L26?710R5R\$^X=>R M  
^=>Z,D,LEEM@>H^G=>4W1(X1\_1^LW^?CE94 DEW^4A+EJ^BDN1^GDS<K^<M(C34F9APD6J^1)XW3+V7)5A9JTO1A^8V^H^H^DQ@BVPD3Z7E=W^NM^XU^M\_L\_0V7HGN  
&8Z\_LHH7>5M^YD\_PUN02^T3\_K^0BY7^5\$3^K1-K^1+?G1U89 M1^W7)8(K^M^4)4RYAPEGJ\_OQ108B27^LH&G\$5P(HW)@>H^H^D6@WMR1^MT3^+1QL(FZ10VZRG:~1  
/BDN1XS\$14A^EW>19)EJOG\_LIU7^0KZ17^<^G MD>@AB9WSD."0)1G^REIM\_L^A<(8X04G(HEIFL^=9LG@R^U=5^EM73-79Y(A\_MW193^9;UIE^2FV^V3?  
YI(L@KH)31A^5:GR^K1^1^TFLHNP<8RC490B3WO@ M^>@<2Q>^"YX@86621^+0H2T^+LBU\$=R7^=&IA2IU^F@>M4U3J^&^H^YQV^M^A1F6F;NYDB<9SB\_@<9IP^P7^+?<?  
JH3B3R4JH^EZPUM1^L^HJQ>O6M0N MRQ;25(DJH&N^0Y^Q\$)<@RE^191^14A^CGGJF^HURB;T6@5#3 DW\_MXG8+1(L\_1^8I M^H(KK  
R920UEM^GE>?>W1+FLA@>78J8)5^C0614T(G8<2^6K^WO M^MU1^1^0VZJ^@>E^H=UNR31+0 M^158>=>M^14A3U^K^15T^YZ+Z+R=14J G+6X@fT  
#Q>1>WZT6UEWP457^MK\_ZMQ>?RW71N7V14HJUVJ1L^6YU^Y^XZHJN^VLJ^@>6ZD20E?BGO6L M^>M,D,DL^08G1%6@>SE,K2WL\_WRZWS08L&  
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1^#GK\$^Z2R3ZSRN MP^3>0) S\$ \_"N^AVW^O:Y<6N^FSIZ^HTU\_#99JZL/L^O^?3Y>8V+2#1 M^=RS1^1V5044FFDL^ST6GCW^YQV^EQ:Z^1J^HNCR\$1^GHV^H7^=-6A  
HVP7H0&41CDB:"ZH^>2.B43L1^4XC4.9YX3.U0<=&C10A^B^B^O\_3: M5^&9:Y1L\_>287^1JX^D+18^GEMF^M^WKICL^C?>=SNBZYZO@H^M^PA2Q09S^H10^4%CEI?  
04V2?DV^\*7T&E@ M1=O@KK7\_1HDN1916W/PO:OP MOT^O^<(K&E\$DV&EBK@<T1R^M M,DWE\_0FE0@<=CYKN&N2@15^0H^U^G<@<H^1W2+1+7@F+0^Y0T8  
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MLL%\$P5^&X^P7&IS+4UUUIEJ^#N2MS;2&X4)EK>JH-ZGS?2%W M^<0:VVIDH4JH^VNP&1^MV^4S7-6^G8T\_1G77^?KRN/NB^A/N+^17S^1TG^H7Z>\_9UYO54C2=  
M27=K3,H80H19G L2;DB51=-8SSC\_BJR.A=55X&J33R5C073M&K^H^>M^C1U^QOV\$W35@H^>Y1F\$#@C#G@>8@F08:C^>4^15R6RA^V1M^M^<@>WSS3^?7EC?  
@>1\$1L^40.Y1816KGP\$S1^57B \_R.M\$91F@O^XISEH^BBE21J^1U\_XPP M\$WA\_X60EA\_GZDBN2=>0W>GWB)N^NZXNA^V4H12EJ5E^X2JR\$KOC+  
MOE10\_1=5B10^BDT8YIN^V&V\_9LP281^<01E3^>M^M1\_Q81^B^1F68=P^G.O M\_9F34A^/R@=5^GJ1,0WVH16\_DVP4PVYXK1L^K<3^PXD\_KJP1^"P\_>  
M1:~K(VOY4A.5^J@H^YKEW&\_7Y0<Z3\$1V)P80Z3D^ MUL2D^UJ^QUHJH^GOPONU7\_855M9FV223&^2\$8@ ME32&5=1S\_F6Q\_A6%>L0MCHAM?  
J^VE3M^FSHK4NU^1V4&@+F(4:40) MTLR^RBOK/GO>^6BH^57EM).C&OAX>5H1HNBEI@.\$^#?1^T^+Y.C>@K1C\_MYK\_IPN^CG\$(@.EH&1^?FUZQB?  
1+@>@>X^P^Y^6XOF^M^M^&UGA5M^1J\_10Y9IEG1+>X5B4N\_DDOHLP\_O51V1\_XWBDA4H7^80^1F1X21^O\_0=9#1 M1SC>?PTN@>E1L43Z\$7&K^M1^<B=V<+8U  
M1&7%0UY\_X^BE3R2+D=F4<9=V4I^E^1^M2J^?#REEP1^HDI0H^QVY1423\_MSHV^KV1D&1^M1P1X^=HA)@FSR^GY<#%#S1^GZ?E0T^N8R\_6&Z9ID^M1+^M^U:4AU@%  
^\*Q<G^1SHGFI<@>=<SRH931L\_VPF>R9A1O1<6^HO\_6L0SO^P^MFX<C(1-P^>XAE^8<6QJY\_XHJ&X^W>^PHAKYU505Q1T^H&4F15F16^Q&G1D1A^F^49S2A6^H\$SE11)1#  
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Q=VWPK=1642B+45QM INL721M9\*WH422GB@+1=MSI00 U3IC 9D/FZ/NEH/H M=88<^<+JZ1EYV N^>8=Z+X63JNMPD7V6UGT71=J2@LY.W/NPX6.LC(G"! MCI4LY3&A=X^451F8>AC">Q-TN^1<1>V-Y^1^5==&FSL-ABOTG1T6W1MX@<^<OR.A. EH926HBH1VZ.EZ:KHLYVX&SXRT>4/15L0M0Q.&AX%>L MM=Q^VW6GW/H<U>ZMXLBRZ<^<B4>8<R(RC)>4)2I@.DR42.9J8<=>UF1B MHf<+><4>WJFJ>S82679D>=5 NQ(M=7F9<+>?EJQ/D.W7^>G0.2HMLMMRO+U57YVQ^<O MOY>USK13@<NRCPSJ.4I 5A.5Y9YRQ)@<8.ZAUX0.G45^22R.M9<602VH MP<CR(GVH)-8FX&Y.ZBY^Z2?>XZN.Y2<223H<SKPIGWK^N3.S7ZUO.M=8BFO@.RG2.5T5?>9 2W2T6MY)<+N79F<8Y3A>56NT1^1.21-B(BY)G M49F=CF<61^>W2@5(GMVH03)Q^U1SW^T2Z4A1G^FV&Z<&&8RID M^3ALOP4CC<K628F9&7^>5.6MJ #>7=1=V^U.BHJH.EU+4Y6=9B2B2U=>MUHJ 190EH.Z82%CV7^2)2IS6R1?Q4^1^78H95DDN1<4C6>SNIHAY.<+M5O/O^H.S.59P3?INN>^>BQO.A/LSL (DG)<^&^POD\$ M>+>38?>H3SMD31OW1ADJZGUB1B^>J2M.2A 57P6ADJYB1F7M^2?V1WHH1^E7J 56%G25=4 ^VVC=&K62@+=02M=#+J.M.HX8"GL^F2M? OHKfZVCP1F9&1%>RWEH1U 1M1+OAY8JF1P3K<0^>A^AKZG0L52^2RZ M^>1>49/G17/GEQOAF+JHC FY6M)69SS+JG6^X9+V1OUDH M^A FZR.W7WN M9(0U =>A90BL1VYF1L3KCS<ZU>SYHYH9X.X.T. C41BQRT.IH16.KGJ6<3WJ6>OS^>?>DW9JFUG6<KHJL/TL 9%>?/W@2.1.3^K=VO1Y1L^UYOQE?B.MG151=@R6J<=?>XXI051+VXSPKYU.5C<2.1>67V1+>7HAO.P.MBQ13FEX9Z&S9>^PM.HPQ1FJ.15/OH?F 2JIG.JM1U>R MfJ.P4=B^92Q3P2+88XD1SM(8%24/42S+4.E.8RC<@G.L.ZZ^>Q15PIXKS45321.3MBLSSPYZ4G.4OQ8&+6.OEW\$<+&W.95P.BEW0?R52CEH.<+YE^M\$9R53 M(X9R=F1L/MJ.FN^>M.FWV.M9/J1+>DNYD?D.2LR)D2R21L.P1X&A(4.2?)> MLY06<0C+?E4G3PUN=>AQO1V4H)IDM6<+>=A/HK128@/BINO=>B? FOF4+>1.87@<ANQ?M7f\$>#. MNP.V^2%66W^>M.ML#82<IS^>L>6@OYAG2UT83<6>KM\$>B1?V^>L>OS^>D>@>U9D78R/ MN=>HWO0.N.V^>N1QOU^<C&BS72MX.M^>LUV 93%>X0 M^FIVR.H1SLP<61W3M3C>GRU8& 5-1@PILK&R7UC4H0.M.W.38F12X1WVWNI/HL^RE.S14H0&X1DGLACDQF.I#VE>@43.MYFQX^A 8^> (A3-B.ZCIG<G^>YSIS>@>A^J^>L^>E+AD.KEC2KHJG.M.UW19F.U.LN8IS).4%6B3Z2251&Y^XSC&^>96H&8.WJHZRW9M5^>V^>LX.MJ#E^OQDV1 UN@KJYV7F1\$MJJV/ #TH&62WZEGU+Z2+UL7&K43. Q^>03H.W.MQV.MGL.HTX.1<^>H1W.MURH<3&9.OUHYZ2V.01H^QWOLX3W1^>X1^>3#&A6IKO.&A6B^>F>U6-L=>JK2Y6^RH8S1<MGD)B# 5.2I8\$<+1RO)<6H^>1H^>19HS0)C6U2<6^>M5KN^>D3>15U.E3L6LOYL6M7#9%>M^>Y^>OF+D.2UP5F.6MST6K^>L.WIR^>H1L+MYK&Z1-M72N1AR)76\$>1>?>7<2.5KOY.K>I <@>NG7.HZ68/IG60M<=<<2?3CVZ?>LQ6+>R.6^>HFNZ.I5J1OJ.N1OXJ0JYV5VW^>M16^>M^>M1Z1\$>^>OH^>?>L.MJ3H 1\$>?>JOI E.45N2D4VWZ7F7H1B0Y^>VQOHH<230HK/LV)3Z2.R5 @>@>6Z^>?C?>L^>M35WK.P^>USYK.K+OUG&D611AE1L^>C\$>S\$>TBE30EG<41H^>NUK\$<4&3>TL.MT8&672\$>VQ? 5I24^>X4V^>Z4M?>E.KA4TKN.04K7SXB3X2P.7U 5PIL.NY.MAM^>M1^>Q?>FZR.ZV^>L^>K^>M=5.O?U^>KK9B^>IM7K^>?>2OM2?>RNROR&E^>W^> (MRH3&RAEQC@<B.132IR(L+M^>M^>A=5&31+>KK01Q6B3MMDB)H1E.S.N1^>A^>IP^>H^>PRG.N^>C^>36UE5E8H.M0&6F9^K.S9RYKG^>3L=F5?>J4YD2BE@I2N^>XBJ^>N61<5UX<+>Z2QOY2^>MSW.C^>Q/L+J+ZAC+>^>DV1HB) M+>1\$Y=>0C&2T^>DD(OH^>T^>XO.YGKTH.V7>5N0GVZ+I78H^>T71^>02^>M^>K^>MN3.N.Y^>AP^>17^>H0\$1+Q.O=>RAGQI N8XQK\$>N^>7>?>R.YLY^>6NB^>5.BSR5 M^>8ZRA&0JWF.4^>9V0F11461L^>L^>N1Y.FV6M@>4D.NX<+>PG<2YV.ME.H32TK&ZM BTPM2.TGB\$>UR1PNP.E+8(3JH.8RHJ.F1L>WWW.00Q^K M=2T1^>L.T^>W^>8ASOLIH>^>9(M^>L^>F^>+>A^>H^>Y^>Z&VDBO^>41B^>+>SPR4L^K M=>40Z7M1^>A^>WMJ6^>T\$>GWH672Q10+Q+6^>M^>U=>ISFU4AD&K5^>M1 MN^>EN^>6 1&L=PGCVS.NI@81Y@FDP41TNH+A5<6%>C9.O.&K^>U71NBT9(B0 M\$>@R5F3BW40U.CNI@<Z1.IQS68((#K^>V1^>S^>X2B^>V1L.M@>Q.1Q1Q3=>^>A.B^>A^>S^>N^>FOQ1(K+I2A9N^>C^>K1.M1@<Z1^>VQ312W212U2.2RZ.JMW5\$>26GQO^>5? M1ZD5&12&(<^>L9.M8D2=9.0H38+>M1^>KJH5V.MBI&S3Z>@>EJW.P.MI8Y.\$H.W^>2^>+>H1.GP.SL^>F^>WZQ.>Y^>L^>VMN^>52.2MXV^>H8X?F M1>+>7WIK6CNI^>C^>5.R8F^>D&JH96?>4&E5Y0T01^>0^>B+8D\$O^>N^>L1=>M^>O^>K^>ZKD)K\$<LH)G4O.M2G^>^>DQO^>Y^>C+>6.90S@.2L^>2PJO.V0KOVH^>#>96T8T3YM1\$85NP5A^>(MNI.E.MZ.8TR1<1.322RR>D249.>0JFF1HNN4^>Y^>A7Y^>L1^>62U+>Z&BR2U^>L^>M^>C^>A+>46=>(W&S792T<4353G.8R^>R^>N^>C^>N^>H5E02T^>@>GE@O1P^>8B1K6^>7.Q^>M1H4^>4&OSXZ.PV^>R90I@9K3L13X9EJ1^>EM.O^>K24\$>Q^>J^>F8JO^>@>31.M1A^>9E8R&H1L.P1HISQ9K.EF8&C191HC^>0Y1M^>C<3^>OQY&W^>X\$>J.MZ&S&SVRJKAZH^>H1.MOZ<+>3T1QO^>@>+>415&601L5.7H.M4XG3^>5Q6^>A\$1^>S^>I^>#>#>G^>88.EYVO<31^>L^>F^>XZM7U1Y1G6H6YRF1.WO2X.M1P^>=<=>DQ@H=>0C9.37A^>@>6+>4C4D.MDH\$>F03.0^> (V1B+1).\$>KN?>M.S)M^>C+>+>I+>H1N2341.NQ97W1=2H1WD@&

I20Z7UV)LWB(,CHLY^ASI^IQ M6\*TO< O>I>^A%7Y%U18JZ J0#>N7:17@/SQ(CB+4ZE=0Y2H3I,Q+&@0<,%0 M&  
(9TMZ=>WZFE,HQONQ81DBB)=GPWAE=,1T&=N106W#0)H>TOT#Y#PK/NM M7Q J0<=>8@>@L,D)@MFR8^BN^=JELQZA93,~^#^9E=ANOM^N^M^NZIW^MYP=>^53QBS+  
(^7JC<=>G=2,2RR7^OTS:(TLOS-2\$N10S;HJMRD;C>G=W6G6W^WJF,ZK2C^ F1@0R,B:29\$8^H)@,MD,2% (P@I@E@B8C(Z5^VX)^VXN3J^M>A?<  
R^S92^<^HG:0I/ODCSH MZ\$M\$M, ZMAIMD:6:Y% Y3^ MDC:290Y1Z^3^FQVTO<QR MPD96B#^AROF@DU OIY<=>B#^P1<^U2JCO8N708,0H%0,0<(D03 M6&14P^OP30,(HO  
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^8YRF&4Y^G4^B 1+(0A+)(D^&@0^1% KDC:HS71,2E MY1+HR3ZIV6H^P^,KZ^RQ(CI,F)-1.559 6^U1G1G1^/KIWS0VX= O54N@ MMYE7&2JY  
HY5:5C:MR&=>LRGB8PS1,8HAP3&#>@>IOEQK,HCG@>T1^T^T^N0 MTLQ60D^,FLJF>=>Q>8QW1^X21MKRCR+6MG^OBXMK\$Q8@>SH\$HJ ARX:Z^+Z+W^W#(V@W#1L =>+N5  
M,8^P3^SS5419 BJE^@>YVGL YBE#6:51S1E^T=109)SK1>7W M,^:RH89^5^X1^G OLS (4+6T2JQIAT,S1+7\$OS,7WGM9 D>K^>Z1^7  
M07 T2>1L=F,BJF\$=W^N1^V^WM,OH+K=>K^>OT04RU4Y7J,BF6C^I V=9E,MZRH8\$QX51\$8\$THAE\$)3R\$0^\*#44^I(LY^>#^312^1861,6SAI^,DE^>F1>,  
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M^>5561B3)(XH+^#>1^#6:L13HT#E,9N:3YT^H7E^,KK<V5 UO<0<S^4XHD^\$40@F1+ (Q^P&LS 4AE MD:03+>O^N^Q QP^H45YM09^JY4Q3C+>@>.)NFE  
EQLL^F5A73+53HJ^2V221QR27^I>=(F=>E,T,BK8VM,^\$U2^>80@HCG2L#=>V25,X M910A+19+>K,F,M M1@=>=<46#^2JDPFS3&3^1Y  
D>FSWC=>C@>ZEA9J^/THK5HM>^UC@>H/NUP M1^H1YH5%LX^G M^F+P=S@>2UUNLO1UC3^,IG(DU@E=O@NP&S^W^,U41^M7^J MOO5XIZ1+>C=  
X&1>7,T&M^CUT5U61314N^>W5Z4J4V7 ZONQM 2M17N M7F^P^NEIRU,W>=>146G513^Y^/TRCU67^>Q>OW4,2P9D23Y3^P@>O M11%\$S=S+CSK6WJACG7,  
B@>L1MOL4^>S^15N I@9S^2XOS7L MUH>Z6, S5TELK2J57-0Q8#1\$M04VVIJEK,UR#&=1^&@>BTB> 5\$84BC-Z 1& M^2I\$0C<4#&I M#<8K>-96KQ,  
(IG@>Q>J1+YK1J1^>P>T<I&1=,P3UJ^I5^Y7J5E NOZ7ZM1^>C M5&A0K&ADKVR79W#>16F^1\$+B^,2^255Y1#5%,14+R0<M^>A1 UZEO=>E^KF72^DR^W4)Q^/H1^6-Z^7Q6^\*O^C  
MV 3Z,3^F&S,HL1^Y^2^UYV-YA-J&C&7A26B^>I^KM\$17W M^YAUO201^Q8R5Y3^T3EUV#D19E-5X5XJHLL9J^ BXXCGCFE<H>=> JZNBK7M^M^U EL\$U21^,28H>  
R00J(4AH)^T<1^\*6A+&8Y=0V,OMF0P^CHJG^I@>U,T8@RG,1%5 M F,EJH^C/LB3<^&C M^2@>1^<^93% OYE=>#2-EIO&VR6^GDZ)WJ,IAIXS^M&3ZANFM:CV,O+H0(T M>1E-  
H1^Z1<Z1^>^2^E^FOY1&1^D^WMH,RRB444(A4)(B)S1L&+P27FKF@>BVH93Q+8UAZVBI7^>I^XHC323Y3^P@>O M11%\$S=S+CSK6WJACG7,  
IOO -W7M55WCX1,C7^ZS30FF<0@CS,&HX@A&F>613>&Z,U^P#100P<??IDP,DJ^H,1%Z@>1N25H8%I?  
MPTFO7Z4U6IDPM6U7^#1,R3@A1&+SDV&57^>=>U\$7=U\$14,1C&64H<1K=5B^1 MPB^>1P^MDDB>7^2W2FV5?23<554Y1N,1H@>1+5+J6VYF#?>1,6%#  
M,H7+1^>@>I/N13>1LX,8#>T+1^HOBJ2^5%8%E,UA=U%#P9=7EHU1U,1^WCHJ=1B6^>VZ^Y<K0^6&F&49D^P^M^H^>P2^M^QD1^P2^M^H^>Y,0H4)>E MZSH#J0,~^4Z(7X)^V,LX?<  
F8+UC,F=BOXS^A= O85;#>#>2I7 G267T1@>C^M1,4>OBDN7^1+1&1^<3^<@ FKG1HB=8A^O^7^I\$2^4C2E>O1CK,KANOF^M,LB5^M,6,OB8BU0\$AH)Z4@>C@U15<BOUSHJHYFFI  
M^GU5E,?MEU3>32H5^B2Q<1L =>1BJDCA4M&5&\$S\$U7H:4&ACFETFG@JIR@ MTHIAGS^K3)3PS+>H1<=>Q>+1+1^YU=W^HSH5HV6^JY,HJH|E|=>1+OQC,90+<  
M177Y1%>C8D^8%KIH @H85CID8EL+I2LOP;ML#H8E&^?P|L,OYZF1NMH=IO1^MXIN^I^C>EQ2O1<44P3DC11%#3\$4D-47&(1\$JCB<6;I2^+4R(IJ2&5F1^=\$G M9W5W-PS-  
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Q=10^1V^?>?>=0=I12>=>SS1,X M\$7L^#^7#0\$8B^4Q\$<=>Q,HO^M^RHXAIWJIBD, BUWYM^QJIMDBB,61APU<1L^G^R  
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MMMY3AT1^W,2^U1^F^ZJ4J2J2>@>2&S G50SAE@>GSGR@G9KX<> SKU X(XAN-OHM MP21V,HAH22K6C+E&5LLSXFN6DQ^# MUE,M^B V^VJ78BM4C9T2;SL,6(40E-  
%KJ 10\$^ZWCTH^7XHX8@F)(1A M\$E&@>C2 I^TOP)+H0NP&IV^W3I98>1^FUKY^WX7M=\$)S ID6>I2,YJ7^@ M7^1WHNV-VSHN8W7 YNZ 6,~#MFM^MTRF-OH0-  
>3,N1H^QO<I2N1^=>UYJ MO1XUQ10^#>H7CX|ENDP\$P8R8R7^,CGR+ZWOU^>H2XQM>JY< R^K& MDNY14 >~16H1 T^OR57 LRQ@>80SGH40LH1Y,5,1H9E^\$IO6^26O2G16,S  
MTRFKI01,2%UO 12E,I4T#10Q(2^2(0\$521)1,X@>+5L^1(08B7^B<302^1A1^5VYTD0VHISUO^>E\$>M919^>OP^D^>RD5 MD4H<=>@>UJN/4X30^3+3S71Z?>  
LK9Z/CR,1^JBY^2^S1H^0D^DPT 1 MN@>C^UO=1^<C@>8121^1/1&5<5^>^DV^PC9=>0,0L1^TT^# P:GIS=7A<YX XJ,KR7E,JWY57J^,MW>12?  
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BU7K&1L M7ZICXFW+5BNYP>=>J7R:76C4<8^ N&G7 8V^>UYE^H1^M^>3(0U6)3LXK+>4^M0X&12K^>Z4J1,3^?F9V\$#>=>97L 2/H,J5C@>JNZ<=>@>MX31>=>#TOF M^>  
7^1LWOT&3UN)Y%=>2WPW8>=>CZ7:HEC^7^UPZ+>#<4&V;B)UQW1H^12 M^>K=U<V\_ VX9G1ZPP&B\_# 124H8Q2B8^H^F,1W7G^1HJX3GR0D^ID^<  
M\$TNU9R2G8H,0&8&EDAC^9IDBP8E8^> (R1C2752XV,1)SH^>N715^<L ZVZYVT M\$Y<^>8RIOP&C&0<=>#P1 ME2^@>M>LJ56C6I=>YS9W0\$1 SNL7Y,U  
J>F10^J&RP^9@>X880\$5PL1P^#M^/UDL4GC^Y^H^RW^%L1#8M;7V8J^PNKPO^D2\_6B#>=>2&S12^F#>=>3^T1^6UUCU HU MX<=>  
ICMB+77V,BM>=>1A V+>7VAVVMWRZD&7^5-CA4-PB3, @>SR4#4 ^Y(G M^YFE^Y=DB(^DKTGC^D/K^1^:SX1\$T86U= MJDL1,RK#>AV2%#17EX79^5P,N4P+)=NRX>=>  
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1W1IBH1AMF<E^>CS6GATP<9\$>E(48 MRJ N1^>21(1^>2D^>2K^>A1:1EW1EW-G^7^K@>#>1^>47 A1:1LMM1T2K M BRN^54I5+FY6U^5<3ICG10;HJK58^W^>  
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H20YRI&CTASK(8\$ZD31M5&5SEFM<:GMG^>M1E YHOG^G1^W1^=>BT=>17Z^=DK @>S/>^>Y%R=5T-\$&SKJOZA1,~(M1 M<4UK76  
NK2>58\$P1U@>#L1+O6#OJUN8^>Q5736H< <Z+VZ Z\$@>J MB1H8A^>C.99C MGS51&I(H60\$5) F1>F^11%F<4RP^8X\$#^1^OB^>=>9\$>BGM761PLR+JZ4)  
M%9%>P1H&X5U&90P181^>DML E\$M N,%>=>FQ\$<Z1Z1^%>X&S&H1<=>JY M^+1K<X<X<T4Q1M13^XMB1P^,N1Z=L1M)6, 52>=>71TOWRG^5H5H1<1 MC;U^YNOV?<  
5,15@>U@>40#>=>J=B2MT1M201N>=>Z\$W3^Q1^>RES4PX1^>47ISG MTC (H16A0)(A&1K2KCG+Y<U0^>5^>QW1CMR^0Q0+31^S77H143C55Z=49G M1^Q FUCI0^>2?MD  
\$44@1^RH4&0<=>A^FE^>2A1^>VGG2V+6&X3^RES4PX1^>47ISG MTC (H16A0)(A&1K2KCG+Y<U0^>5^>QW1CMR^0Q0+31^S77H143C55Z=49G M1^Q FUCI0^>2?MD  
IY X^OMH1(YVH^0^Q^\$5DA41AE\$4J;U-(0D3RH1L2^ M^68V^W1AYD-N1L N^OVP^YN8JUE+;IA1,5L1&^Y V&F29TCT^>5 OV9 M\$5\$>C(FAFDM:E88B^W2P#I  
I66\$15IRSD5P1H^>JG&8 M1U^>QOR^C11P01L MIVS1^>1 M,TID:5,VJF^>4FQ&JKY,9P^>Q080MU7,DV^>ZQ7C7B2T\$ M M9I?<  
90GSLZ8P\$292JX\$68>,>MVD02RFP G5=1U1J3^>F1Q1&0<=>H1E=U>D2&N1 1\$5\$2 M1^F817EA=>=>RSHCYW^>Q7 T=>=>ARY OTIO1(#5N;<=>9FMMO1^ H:~@>5=6 ML0+1  
<1T3,H04HMF^>I91=5K1G1LC191>AN>G^>C^>MZSIF^12(K0B5\_0^>E M0<@>3 0FA^8P2P6^>=>5A^>T1H^>OYGE^LHM W11 2P1N2^>1^>N778^>3^>MXS1 L M1H1R/TOVOO?<  
AP6W1H(V1^1)O1H67^>5;U608U^N9B>^TKDE2^>G1^KZFO MRUO1@>1^>M^>1H0&D^>R0^>8D=>PS1^>SOG2PH^>V5X^>#Q MT-OKN7^1A279+18)JMHID<LEOY^d16I  
T#ZIE8LX,WU)9TOUO4SYE7< M1RS93 X=>1^>LQ>O;QAGT5P^2L4J^P# ^A TOJN8M^I2?D)Y6.(G#),4) M3->0H0#1^4+5Y2EH=Q\$D88&S5,=^\$>LV1H^K(B^2M,F^K3)<@>  
@>#H1^M3NE8 6VF=>=>STHM^>3.60VXU1^1) UB17E01N8R&A^>YK6^7^>V^T(M860 M5^>D^>=>GLBIOFN10N+1^>=>5&Z A1H^>=>G^>GQO^>7N1L2^>RN7^1W1F1^>^<  
M1 6K 1453,61A11%#HSHB15Q=>#^>N^TR<B1H^>F(C+6YV5S9K6P7^>F^>NP WA MADJ>1Q2D81^1OCBN@>M^>JYCD^1B2MGH83,7Z# G,6,D9WJ,6D&7>ZTO725  
MX<=>XOP+2^2XVDS 2^>KJY 19CA^>48@>015R^8ATSNW\$62143P MHS^C3K@>9V\$1 8B^0^>97 M^61^>C1H10D22^JM W1T7G=>=>H@H81T^O>XTO/HY24^CS&L%(41820A M)  
N8B,BCA 4^>NBS SEIO&@>B<=>\$X01@>E^>Z^>OG+X+G@>UP^I^>H^>N^>MA8H1H01#>=>C^>M@>3^>C1BIEFI<5TTV<  
MW9NAZ8/^JM^>Z&Z^C0G0V^2N6<2RIGUD1<=>CA^901+FF^3E6J4LDA^>Y%>#>DSS M X22THM,ON0^L# 9G)B99J Q?>2)JPIEF1@>Z4NYW95<  
MY^MUUO(C CYRRKPP1^219>P3R3B^>W7^LWV&MKY1^>IK,UQ&@>K1K(C? M^P^M^R^H1M59Z<21.H^QA<=>8)B^>AABE1P^,UB(C&S.2%L \$2,^>1-(V5 MN4W6U^WQ  
\$14@>=>KJHAAH1W+31F^H1^>1(H1Y9^>=>66L+78@>=>XZ6 M HUQ1^>1D^16AEH1^XHE1C1N^>=>1V8\$170EXY1^BG,1AE,Y^H&A2^>1#1^>2Y)DP76AGV  
MY+JESIC(C140\$)M^>#E\$F 2B-19^>Y%>F^>O^>0^>O^>E1G-E@>K3=P#8)4BY1 MR0YX,1^>VTRIO1L P^>M^>XVAP^G2Y1YC<=>R0^>L62@>=>=>WG1H^>JA^>#ED MCH Y=9%WG-  
SNGBS49519^7IP1V13B^>171=9B=6 ^DIT6,0^>H1^>O&E^>O^>H M^>40%P6^>=>F21=44H1P^>1IAC\$QJNOQ0W1FV=F^>XRI1 EOQB&8F^>D^>3 MDHZ<=>@>GW7  
4^>7MJOR3Y^>HY<+X1@>U7^T1K1>6WR E01T9,LQD)P 1DG&^>K M1^>2(F7^>8KDH5,U<H1C1&^>9%>=>64A<7245ULW@96OFNOJW7N^Y^>U5^>7^>M&Z8^>CGXOOW^6)1L<=>?<  
Z&7^>AC&F08H1&0Q0EN^YM\$)1BDH289B^>6N571 M^E=>9M^K M^>N=9Z,7^>2#>3 PUZU@>X\$=P&KU7Q1S2^UM6Q^2^3\$1,~>H1^>M88>=>TJ@>156V1E<  
A2M13P&M^>CUO^>5< G^>2V^N1\$17^>1C;M1A40^>S^>F)U9G M^>M^>Q1^>2P^>YVAB296025TX51<1^>9L1H1C1DBAZ^73PYY^>2YD 39^>Q1 M@>=Q1ZTU^>=14U5?Q1&W1ZHC71  
+A19EU1^>21^>D93W7^>V357^>BME G< M^>F0E^>3\$PO ^>B2 W3HR\$1WC0>1ESZ^>Z^>N5C CA&A^>ETHQ1U^>45UN^KO M^>HQA^>1^>6G1^>1\$>1(LOARF1^>=>S^>4\$9\$,%>@>  
M6^>1&5&15&6&8&7%>W1<=> MZBL^>O@>U^>1JIV OSZ1^>K^>WBWKW1C1^>3JH1^>T2J1H+1^>O^>EKH1U^>W0 E M1X21F^>=>C%6,61A^>(>XPDNG\$>90X^A)BEC^>G^>OQUH1F17^<  
LWJ&ZP1A^>@>MK^>U^>RCA^>=>40^>45^>EZZOR,NBEX8F&=>Z81^>#>=<3>78D>+5SK M80V=>=>1^>M1 MA9A5FWKNG/ZY@>412GH^>#6>0111 C%1^>H1B1^>S  
J,C2)P&C&1C&B=>9f=H R=L@>X&5=25;BCR A^>U<,>LY1+1 L M6(11^>F7J8A^>F>156KRG2H5L^>FD 3=0P^>P^>0Y>X^>66P1 6 OL5^>H12 M>=>SV&3M1M4&  
M1^>T&BAF@>N3^>2FJ8@>C2 5&2^>06H^>FR^>TE^>U^>C1066H600>7NNVK;L P^>43^>M3YTM18N^>2^>D^>Q^>5=1S@>=>ICR1&A0^>40+@>1 M9<=>N3IA MC<,>  
D,63,BNS|CBFENZ1&@>Q&2^>Q<=>G^>TWU2^>Y=>1K>1)XEH1^>V87^>A6 V M^>MM@>B18;HVXD8HOKORBB0>=>K&S OCU6) M^>AHSR<^>M^>Y^>Q^>N^>=>LW^>H1TW1MM  
21M;Q4^>CG^>3B^>YQTS6&4HXDXZ M3^>=>SU@>S^>QHF^>YVG0^>L^>31NOR<^>8^>W6M1^>M21^>R^>J^>Y^>X8 K<=>18802^>3RUPNZ9^>E7J6G6M1/QD9L^>M^>Z^>Y^>NS1^>4^>HCS>?<  
FYQ2^>=>UW 4^>F^>T^>=>08^>6Y1^>S106&D^>F^>OYH^>D^>E4ZJ=51CBNS1^>C^>E91&2^>M1<=>VHJ1^>Q1Q1L G^>YH1B\_>HJ L1 6\$KK<=>G9>?ZL BOWUS^>EIEU1 M@>1=,>@>N  
>W8^>YJPNE3^>M^>G^>79^>P1JN^>1N^>H+1^>H@>=>E^>V;ZNR M^>B5UR53^>E PF)BQ>9967^>M^>W^>PEEDVT@>7^>9^>M^>XB0K&E8Z6J1^>FJ\$1@>=>H^>X1^>#4PG;WEH\$>FRV3HY  
MHZKUE1\$U^>1^>P^>1 IK04A@>D 4>A>?>7^>H1^>38T^>1^>WCFQ\$X THGZ=ZT^># M1^>2^>Q>=>19062MV P9P1FBF158&^>T^>DPT23GG<=>4<1C^>B240BK4Y18/DOCX^>MZ1&W93H1FUY^>S1<  
=>A@>Z W42^>4A^>8^>O^>1X)Z1R1B1\$886+39L(^7Z4^>=>MV MUU71^>BOM8^>=>KPI71>922^>2F^>CA&1^>1^>#^>SB#>A218QFDL>1E=0&T^>H1C  
MKJ1U^>K1<=>C^>DDW^>VMUOZC^>N=8AV7^>L^>03TU6STS (FMF&M3P 0<X& M^>N^KJ@>218 77^>31^>H@>M^>NRO8Y^>#X4H=>1^>110^>0\$Z^>=>605Z^>=>50^>ZU  
MV,Z1G\$F=>BS^>9&8D^>?96Q17^>1(RFU)DHSOQ:83.D:1\$H BGF^>V^>SEAY M W6;R^>W X GKGOBZ1^>YQ C M^>AXQ A X1W^>#80B8^>1^>2^>4^>1@>1^>H@>2MX M^>N^>F561^>YA^>H>GU+<  
ITU K1^>PV<9^>C^>P3G1^>7^>4E5^>1^>HES^>F<=>+3N^>19GN; MK YY^>N KE28XVJGK\$>@>=>f1.D1H8!(<^>P5,T1M412F(7@< N1^>6KNK<=>+4^>1EM6 C&ZK^>C^>LW^>+O^>N1?<  
V5Q967+735UTE^>=>MV0+>W2^>9B47D^>18U3851&^>2F2G^>H^>25^>93YK7D^>O<=>RXPBM1^>4OU M=W4W1JN7O@>WZ8;US&N^>#3PD>=>LHEZ?<  
#19U1S@>R&K,1K1A1^>O^>P1 M^>EDU(1^>7Y^>P+BUW^>H7^>M^>AMIS^>YQK^>9BOK0^>7&R K^>LR1^>W^>1W^>H^>W^>1^>0^>M41^>H^>X^>U^>=>1R4U62CT&2^>F1Z1^>6AR<1MKT^>WIN7^>5^>  
MDAP\$XOACH(N,M,BG666Y00^>G8149E&C1U1SM6>30.9H<=>8&DN&K< (H12^>2^>Y40>7 1R9B1^>XG53XRI>^>YQ7IE>^>I7^>Z^>7^>YV7, M7G,Y9RHJ1+O^>AS:7.B.LO+>^>  
>+C>=>81J\$# JS&A@>1^>O51#>@>47^>W9D&^>=>K^>BCR^>KA E12S^>G MV1@>B=W^>F^>Z=J6068N^>X&ASQ5,2J>1^>6^>U10WU^>2^>ZD6K RK&ZBOM\_5  
MC\$5V4&QBV^>1^>FO^>@>4^>V1^>#>BD>1^>=>Q O,ISFVIC1S,C103OTG1N3^>85 MN^>F^>INWX^>A=) TID^>W34>1S, O^>K<=>S^>=>5 BVIE<=>@>4^>1^>T^>UTU@>1NPL V^>7CZO<  
M\$>S1\$21^>#>=>9 1^>TYKA,H9C&H1F+1^>8M1P5&8^>GCU82H18Q^>P@>=>16 M^>F^>H^>F^>C1<1570\$R1HJ^>E&K^>TW74^>1D^>=>C MR7HW1W2>1^>TFP=CC==>5B?<  
1^>864V1=1AVB(K)^>2N^>MEN>,>1>=>1>6^>7^>S^>61A^>FLY1QG&A1JTX2:WA&=>QZC^>OHHX^>8B>=>+3@>D,9 M^>SBS31N^>ZK^>LHCQ3,8^>H^>SHN\$8P14^>2^>E5^>4^>X&ZB^>9^>XIMV7S^>1^>HES  
M^>N K^>NO^>H1^>HLEZ\$=>MPC&1^>F^>E>=>XU61Z909H7^>F^>E>=>BG8X^>5UW^>#6 M^>2^>=>8.0B RX1L^>M21^>R^>J^>Y^>X8 K<=>18802^>3RUPNZ9^>E7J6G6M1/QD9L^>M^>Z^>Y^>NS1^>4^>HCS>?<  
f530B4^>=>+>HJ+P 7P1ALX M46<8UY 3HSU&4=L1MYG8>=>M ISD^>AA2Z^>+^>K<=>H191\$5^>=>L^>E&=>16G1 M11K^>?=>0HFF2YAA5M^>Y^>T^>P^>AH^>P^>U^>F^>=>#^>O(H+>3O1CA)  
M\$Y&F(D^>ID^>GPRA^>1MO W^>#>1&@>W^>R^>PYT^>M^>G6A<=>J&KGN41>14 GC^>P^>Y1 MG12C997^>R^>T^>@>NZHG61^>Z1^>F1O1R1P14^>F1^>=>1^>WUN1V M@>=>6^>E1M^>=>1E1M^>+O1  
>7210^>=>I^>C@>M9GFO1JHP^>YX^>T17



J&D[TOIYR2NSQP090Q/749X;4\$174UE//;EX"J+D(M"7L4S QSNZZR.B?GKY\$)FN0ILPO J+&7P".TKRTPF0?T5&40K)S0>7;  
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MAW5VY&K8XJ@#ZTX3A4X\$XQJ10A7ZK(KI)9-M9T.M61=&C.GCAN"BR(N\$G;F2YYEJ2YMYH(RP7VEGCV.R)M)J=S0J&X&SLN.MHCFJ/H?>6&H5@+8F!  
(NRF%)2"00LH="T+O>#(E0=#(SXM#4P7L-8\*2)PJK\*R2Q)<4TT@5?ZGB(T+R^W^X^M66H>S063>=>P7.P7=-Z?=-0=/(SN?+VOH.O.G@FFJ;S^"(I)(X)LW=L.MR.NR?  
H1XMKQ.OG\$^>=>%(CJTR4D2X2K\$AF%1^1D9;T\$U+@.\$1&S^@=1M/D=O9J+@F\*QIV/L+IW.8XH>@=Z5\$KM>\$-(A?J.6BMBW"&>\*>K  
M)9.H=6&L&L5HJ5E.M.T#M.N10)R&U\$1^>MDD>#S/=>PA>=AD.NL3WJUEEAVH.MBIH&4S  
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G+L"H%71V@7ADKQBSY..EHSUNZ2LB<IFHI.NL5A\$).=ZAK.M8W^4.BVR..(0I7\*6TMB@VVMW1GDS:IXQ1C\$S;J09MF/GI>OV#MBG.3\*B.M.LHD\$1-0Y3Q(/HH+X@?<  
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http://fasb.org/srt/2024/ChiefExecutiveOfficerMemberhttp://fasb.org/srt/2024/PresidentMember10-Ktruefalse1-164110000-06406492980 Fairview Park DriveFalls  
Church,VA22042703280-2900Common StockNOCNYSEYesNoYesYesLarge Accelerated Filedfalsefalsefalsefalse3700000000144755659<div><span  
style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:8pt;font-weight:400;line-height:120%">Portions of Northrop Grumman Corporation's Proxy  
Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for the 2025 Annual Meeting of Shareholders are incorporated by  
reference in Part III of this Form 10-K.</span></div>In 2024, our global cybersecurity function was maintained in our Chief Information Office, led by our Chief  
Information Officer (CIO), who reported to our CEO. In 2025, we have brought together our chief information and digital transformation offices into a newly formed Chief  
Information and Digital Office, led by our Chief Information and Digital Officer (CIDO), who reports to the CEO. The Chief Information Security Officer (CISO), who  
previously reported to the CIO, now reports to the CIDO and continues to lead our cybersecurity functions.trueThe CISO is responsible for the assessment and  
management of cybersecurity risk and the resiliency, protection and defense of our networks and systems.The CISO leads a team of cybersecurity professionals with broad  
experience and expertise, including in cybersecurity threat assessments and detection, mitigation technologies, cybersecurity training, incident response, cyber forensics,  
data protection, privacy, insider threats and regulatory compliance. The current CISO is an executive with extensive technical and operational experience in building and  
leading cybersecurity and resiliency teams in the industry and government.<div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New  
Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Our Board of Directors is responsible for overseeing our enterprise risk management activities in  
general, and each of our Board committees assists the Board in the role of risk oversight. The full Board receives an update on the company's risk management process  
and the risk trends related to cybersecurity at least annually. The Audit and Risk Committee specifically assists the Board in its oversight of risks related to cybersecurity.  
To help ensure effective oversight, the CISO briefs the Audit and Risk Committee on the company's information security and cybersecurity risk posture at least four times  
a year.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%">In addition, the company's Enterprise Risk Management Council (ERMC) considers risks relating to cybersecurity, among other significant risks, and  
applicable mitigation plans to address such risks. The ERMC is comprised of the Executive Leadership Team, as well as the Chief Accounting Officer, Chief Ethics and  
Compliance Officer, Corporate Secretary, Chief Sustainability Officer, Treasurer and Vice President, Internal Audit. The CISO and the CIDO (previously the CIO) attend  
each ERMC meeting. The ERMC meets during the year and receives periodic updates from the CIDO and CISO on cybersecurity risks. We have an established process  
governing our response to a cybersecurity incident from detection to mitigation, recovery, assessment, internal and external notifications and functional stakeholder  
engagements with legal, privacy and risk management, among others. Depending on the nature and severity of an incident, this process provides for escalating  
notification to our CEO and the Board (including our Lead Independent Director and the Audit and Risk Committee chair), as appropriate.</span></div>Our Board of  
Directors is responsible for overseeing our enterprise risk management activities in general, and each of our Board committees assists the Board in the role of risk  
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Committee specifically assists the Board in its oversight of risks related to cybersecurity.Our Board of Directors is responsible for overseeing our enterprise risk  
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risk management process and the risk trends related to cybersecurity at least annually.truetruetrueThe CISO and the CIDO (previously the CIO) attend each  
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with legal, privacy and risk management, among others. Depending on the nature and severity of an incident, this process provides for escalating notification to our CEO  
and the Board (including our Lead Independent Director and the Audit and Risk Committee chair), as appropriate.truetrue<div style="margin-bottom:5pt"><span  
style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Our approach to cybersecurity risk management  
includes the following key elements:</span></div><div style="margin-bottom:5pt;padding-left:36pt;text-indent:-18pt"><span style="color:#000000;font-family:'Times  
New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%"></span><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-style:italic;font-weight:400;line-height:120%;padding-left:14.5pt">Multi-Layered Defense and Continuous Monitoring</span><span  
style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">- We work to protect our computing environments and  
products from cybersecurity threats through multi-layered defenses and apply lessons learned from our defense and monitoring efforts to help prevent future attacks. We  
utilize data analytics to detect anomalies and search for cyber threats. Our Cybersecurity Operations Center provides comprehensive cyber threat detection and response  
capabilities and maintains a 24x7 monitoring system which complements the technology, processes and threat detection techniques we use to monitor, manage and  
mitigate cybersecurity threats or vulnerabilities. From time to time, we engage third-party consultants or other advisors to assist in assessing, identifying and/or  
managing cybersecurity threats. We also periodically use our Internal Audit function to conduct additional reviews and assessments.</span></div><div style="margin-  
bottom:5pt;padding-left:36pt;text-indent:-18pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%"></span><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-height:120%;padding-  
left:14.5pt">Insider Threats</span><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">- We  
maintain an insider threat program, led by our Vice President, Corporate and Enterprise Security, designed to identify, assess, and address potential risks from within our  
company. Our</span></div><div style="margin-bottom:5pt;padding-left:36pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:400;line-height:120%">program evaluates potential risks consistent with industry practices, customer requirements and applicable law, including  
privacy and other considerations.</span></div><div style="margin-bottom:5pt;padding-left:36pt;text-indent:-18pt"><span style="color:#000000;font-family:'Times New  
Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%"></span><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-  
style:italic;font-weight:400;line-height:120%;padding-left:14.5pt">Information Sharing and Collaboration</span><span style="color:#000000;font-family:'Times New  
Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">- We work with government, customer, industry and/or supplier partners, such as the National  
Defense Information Sharing and Analysis Center and other government-industry partnerships, to gather and develop best practices and share information to address  
cyber threats. These relationships enable the rapid sharing of threat and vulnerability mitigation information across the defense industrial base and supply chain.</span></div><div style="margin-bottom:5pt;padding-left:36pt;text-indent:-18pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-  
weight:400;line-height:120%"></span><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-  
height:120%;padding-left:14.5pt">Third Party Risk Management</span><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-  
weight:400;line-height:120%">- We conduct cybersecurity assessments before sharing or allowing the hosting or processing of sensitive data in computing environments  
managed by third parties, and our standard terms and conditions contain contractual provisions requiring certain cybersecurity and data protections and controls.  
Finally, we require these third parties to notify us promptly of cyber incidents or data breaches

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style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">1. SUMMARY OF  
SIGNIFICANT ACCOUNTING POLICIES</span></div><div><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-  
height:120%">Nature of Operations</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Northrop Grumman Corporation is a leading global aerospace and defense technology company. We deliver a broad range of  
products, services and solutions to U.S. and international customers, and principally to the U.S. Department of Defense and intelligence community. Our broad portfolio is  
aligned to support national security priorities and our solutions equip our customers with capabilities they need to connect, protect and advance humanity.</span></div>  
<div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company is  
a leading provider of space systems, military aircraft, missile defense, advanced weapons and long-range fires capabilities, mission systems, networking and  
communications, strategic deterrence systems, and breakthrough technologies, such as advanced computing, microelectronics and cyber. We are focused on competing  
and winning programs that enable continued growth, performing on our commitments and affordably delivering capability our customers need. With the investments  
we've made in advanced technologies, combined with our talented workforce and digital transformation capabilities, Northrop Grumman is well positioned to meet our  
customers' needs today and in the future.</span></div><div><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-  
height:120%">Principles of Consolidation and Reporting</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The consolidated financial statements (the "financial statements") include the accounts of Northrop  
Grumman and its subsidiaries and joint ventures or other investments for which we consolidate the financial results. Intercompany accounts, transactions and profits are  
eliminated in consolidation. Investments in equity securities and joint ventures where the company has significant influence, but not control, are accounted for using the  
equity method.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%">The financial statements are prepared in conformity with U.S. GAAP and in accordance with the rules of the SEC. The financial statements include  
adjustments of a normal recurring nature considered necessary by management for a fair presentation of the company's consolidated financial position, results of  
operations and cash flows. For classification of certain current assets and liabilities, we consider the duration of our customer contracts when defining our operating  
cycle, which is generally longer than one year.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Effective July 1, 2024, the company realigned the Strategic Deterrent Systems (SDS) division, which includes the Ground-  
Based Strategic Deterrent ("Sentinel") program, from Space Systems to Defense Systems. This realignment is reflected in the financial information contained in this  
report.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Subsequent Realignment</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-  
weight:400;line-height:120%">Effective January 1, 2025, the company realigned the Strike and Surveillance Aircraft Solutions (SSAS) business unit from Defense  
Systems to Aeronautics Systems. This realignment is not reflected in the financial information contained in this report; it will be reflected in the company's operating  
results beginning in the first quarter of 2025.</span></div><div><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-  
weight:700;line-height:120%">Accounting Estimates</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-  
serif;font-size:10pt;font-weight:400;line-height:120%">Preparation of the financial statements requires management to make estimates and judgments that affect the  
reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements, as well as the reported amounts of sales and  
expenses during the reporting period. Estimates have been prepared using the most current and best available information; however, actual results could differ materially  
from those estimates.</span></div><div><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-  
height:120%">Revenue Recognition</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:400;line-height:120%">The majority of our sales are derived from long-term contracts with the U.S. government for the development or production  
of goods, the provision of services, or a combination of both. The company classifies sales as product or service based on the predominant attributes of each performance  
obligation.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%">The company recognizes revenue for each separately identifiable performance obligation in a contract representing a promise to transfer a distinct good or  
service to a customer. In most cases, goods and services provided under the company's contracts are accounted for as single performance obligations due to the complex  
and integrated nature of our products and services. These contracts generally require significant integration of a group of goods and/or services to deliver a combined  
output. In some contracts, the company provides multiple distinct goods or services to a customer, most commonly when a contract covers multiple phases of the product  
life cycle (e.g., development, production, sustainment, etc.). In those cases, the company accounts for the distinct contract deliverables as separate performance  
obligations and allocates the transaction price to each performance obligation based on its relative standalone selling price, which is generally estimated using cost plus  
a reasonable margin. Warranties are provided on certain contracts, but do not typically provide for services beyond standard assurances and are therefore not considered  
to be separate performance obligations. Assets recognized from the costs to obtain or fulfill a contract are not material.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company recognizes revenue as control is  
transferred to the customer, either over time or at a point in time. In general, our U.S. government contracts contain termination for convenience and/or other clauses  
that generally provide the customer rights to goods produced and/or in-process. Similarly, our non-U.S. government contracts generally contain contractual termination  
clauses or entitle the company to payment for work performed to date for goods and services that do not have an alternative use. For most of our contracts, control is  
effectively transferred during the period of performance, so we generally recognize revenue over time using the cost-to-cost method (cost incurred relative to total cost  
estimated at completion). The company believes this represents the most appropriate measurement towards satisfaction of its performance obligations. Revenue for  
contracts in which the control of goods produced does not transfer until delivery to the customer is recognized at a point in time (i.e., typically upon delivery).</span>  
</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%">Contracts are often modified for changes in contract specifications or requirements, which may result in scope and/or price changes. Most of the  
company's contract modifications are for goods or services that are not distinct in the context of the contract and are therefore accounted for as part of the original  
performance obligation through a cumulative EAC adjustment.</span></div><div><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-style:italic;font-weight:400;line-height:120%">Contract Estimates</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-  
family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Use of the cost-to-cost method requires us to make reasonably dependable  
estimates regarding the revenue and cost associated with the design, manufacture and delivery of our products and services. The company estimates profit on these  
contracts as the difference between total estimated sales and total estimated cost at completion and recognizes that profit as costs are incurred. Significant judgment is  
used to estimate total sales and cost at completion.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-  
serif;font-size:10pt;font-weight:400;line-height:120%">Contract sales may include estimates of variable consideration, including cost or performance incentives (such as  
award and incentive fees), un-priced change orders, REAs and contract claims. Variable consideration is included in total estimated sales to the extent it is probable that  
a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently  
resolved. We estimate variable consideration as the most likely amount to which we expect to be entitled.</span></div><div style="margin-bottom:5pt;text-align:justify"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">We recognize changes in estimated contract  
sales or costs and the resulting changes in contract profit on a cumulative basis. Cumulative EAC adjustments represent the cumulative effect of the changes on current  
and prior periods; sales and operating margins in future periods are recognized as if the revised estimates had been used since contract inception. If it is determined that  
a loss is expected to result on an individual performance obligation, the entire amount of the estimable future loss, including an allocation of G&A costs, is charged  
against income in the period the loss is identified.</span></div><div style="margin-bottom:5pt;text-align:justify"><span style="color:#000000;font-family:'Times New  
Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%;text-decoration:underline">B-21 Program</span></div><div style="color:#000000;font-family:'Times New  
Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%"><br/>During the fourth quarter of 2023, we recognized a projected loss of \$1.56 billion across the five  
LRIP options of the B-21 program. As of December 31, 2024, the remaining loss accrual is \$1.3 billion, which is included in Other current liabilities.</div><div><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-height:120%">Net EAC  
Adjustments</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%">The following table presents the effect of aggregate net EAC adjustments:</span></div><div style="margin-bottom:5pt;text-align:center"><table style="border-collapse:collapse;display:inline-table;margin-bottom:5pt;vertical-align:top;width:99.839%"><tr><td style="width:1.0%"></td><td style="width:68.402%"></td><td style="width:0.1%"></td><td style="width:1.0%"></td><td style="width:1.0%"></td><td style="width:8.530%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.602%"></td><td style="width:0.1%"></td><td style="width:1.0%"></td><td style="width:8.530%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td colspan="3" style="padding:0 1pt"></td><td colspan="15" style="padding:0 1pt;text-align:center;vertical-align:bottom"></td></tr><tr><td colspan="3" style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%">Year Ended  
December 31</td><tr><td colspan="3" style="padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-  
serif;font-size:10pt;font-style:italic;font-weight:400;line-height:100%">\$ in millions, except per share data</span></td><td colspan="3" style="border-  
top:1pt solid #000000;padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:700;line-height:100%">2024</span></td><td colspan="3" style="border-top:1pt solid #000000;padding:0 1pt"></td><td colspan="3" style="border-top:1pt solid #000000;padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-  
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#000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-  
weight:400;line-height:100%">Revenue</span></td><td colspan="3" style="background-color:#cfeeff;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-  
align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:100%">\$</span></td><td colspan="3" style="background-color:#cfeeff;border-top:1pt solid #000000;padding:2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:'Times New  
Roman',sans-serif;font-size:10pt;font-weight:700;line-height:100%">396</span></td><td colspan="3" style="color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:400;line-height:100%"><span></td><td colspan="3" style="background-color:#cfeeff;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"><span style="background-color:#cfeeff;border-top:1pt solid #000000;padding:0 1pt"></td><td colspan="3" style="background-color:#cfeeff;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-  
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serif;font-size:10pt;font-weight:400;line-height:100%">447</span></td><td colspan="3" style="background-  
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color:#cfeeff;border-top:1pt solid #000000;padding:0 1pt"></td><td colspan="3" style="background-color:#cfeeff;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times



[illegible]

**Times New Roman**, sans-serif;font-size:10pt;font-weight:400;line-height:100%;<3></span></td><td style='background-color:#ffffff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%'>%</span>  
</td></tr></td colspan=“3”><td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%'>Net contract assets</span></td>  
<td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-align:bottom'><span  
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color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0;text-align:right;vertical-align:bottom'><span style='color:#000000;font-  
family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:100%'>1,838</span></td><td style='color:#000000;font-family:'Times New Roman',sans-  
serif;font-size:10pt;font-weight:400;line-height:100%'></span></td><td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid  
#000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom'></td><td colspan=“3”><td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-  
top:1pt solid #000000;padding:0 1pt'></td><td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px  
1pt;text-align:left;vertical-align:bottom'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:100%'>\$</span></td><td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0;text-  
align:right;vertical-align:bottom'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:100%'>1,500</span></td><td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-  
align:right;vertical-align:bottom'></td><td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-al-  
ign:left;vertical-align:bottom'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%'>\$</span></td>  
<td style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0;text-align:right;vertical-align:bottom'><span  
style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%'>338</span></td><td style='background-  
color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom'></td><td colspan=“2”<br/>  
style='background-color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom'><span  
style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%'>23</span></td><td style='background-  
color:#cceedf;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom'><span  
style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%'>%</span></td></tr></table></div>  
<div style='margin-bottom:5pt;margin-top:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%'>Changes in the company's contract assets and liabilities primarily result from timing differences between revenue recognition and customer billings and/or  
payments. Net contract assets as of December 31, 2024 increased 23 percent from the prior year, primarily due to the burn down of advances on certain Aeronautics  
Systems programs and an increase in unbilled receivables on several programs at Space Systems.</span></div><div style='margin-bottom:5pt;margin-top:5pt'><span  
style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%'>The amount of revenue recognized for the years ended  
December 31, 2024, 2023 and 2022 that was included in the contract liability balance at the beginning of each year was \$3.6 billion, \$3.1 billion and \$2.4 billion,  
respectively.</span></div><div><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-  
height:120%'>Disaggregation of Revenue</span></div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:400;line-height:120%'>See Note 15 for information regarding the company's sales by customer type, contract type and geographic region for each  
of our segments. We believe those categories best depict how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors.  
</span></div><div><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%'>General and Administrative  
Expenses</span></div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%'>In accordance with applicable FAR and CAS requirements, most general management and corporate expenses incurred at the segment and corporate  
locations are considered allowable and allocable costs to our U.S. government contracts. Allowable and allocable G&A costs, including independent research and  
development (IR&D) and bid and proposal (B&P) costs, are allocated on a systematic basis to contracts in progress and are included as a component of total  
estimated contract costs.</span></div><div><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-  
height:120%'>Research and Development</span></div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:400;line-height:120%'>Company-sponsored research and development activities primarily include efforts related to government programs.  
Company-sponsored IR&D expenses totaled \$1.1 billion, \$1.2 billion and \$1.2 billion in 2024, 2023 and 2022, respectively, which represented 2.7 percent, 3.0 percent  
and 3.3 percent of total sales, respectively. Customer-funded research and development activities are charged directly to the related contracts.</span></div><div><span  
style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%'>Income Taxes</span></div><div style='margin-  
bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%'>Provisions for federal and foreign  
income taxes are calculated on reported earnings before income taxes based on current tax law and include the cumulative effect of any changes in tax rates from those  
used previously in determining deferred tax assets and liabilities. Such provisions differ from the amounts currently payable because certain items of income and expense  
are recognized in different periods for financial reporting purposes than for income tax purposes. The company recognizes federal and foreign interest accrued related to  
unrecognized tax benefits in income tax expense. Federal tax penalties are also recognized as a component of income tax expense.</span></div><div style='margin-  
bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%'>In accordance with applicable FAR  
and CAS requirements, current state and local income and franchise taxes are generally considered allowable and allocable costs to our U.S. government contracts and  
are, therefore, recorded in operating costs and expenses. The company generally recognizes changes in deferred state taxes and unrecognized state tax benefits in  
unallocated corporate expenses.</span></div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:400;line-height:120%'>Uncertain tax positions reflect the company's expected treatment of tax positions taken in a filed tax return, or planned to be  
taken in a future tax return or claim. Until these positions are sustained by the taxing authorities or the statute of limitations concerning such issues lapses, the company  
does not generally recognize the tax benefits resulting from such positions and reports the tax effects as a liability for uncertain tax positions in its consolidated  
statements of financial position.</span></div><div><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-  
height:120%'>Cash and Cash Equivalents</span></div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-  
size:10pt;font-weight:400;line-height:120%'>Cash and cash equivalents are comprised of cash in banks and highly liquid instruments with original maturities of three  
months or less, primarily consisting of bank time deposits and investments in institutional money market funds. Cash in bank accounts often exceeds federally insured  
limits.</span></div><div><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%'>Fair Value of  
Financial Instruments</span></div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-  
weight:400;line-height:120%'>The company measures the fair value of its financial instruments using observable and unobservable inputs. Observable inputs reflect  
market data obtained from independent sources, while unobservable inputs reflect internal market assumptions.</span></div><div style='margin-bottom:5pt'><span  
style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%'>These two types of inputs create the following fair value  
hierarchy:</span></div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-  
height:120%'>Level 1 - Quoted prices for identical instruments in active markets.</span></div><div style='margin-bottom:5pt;padding-left:40.5pt;text-indent:-40.5pt'>  
<span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%'>Level 2 - Quoted prices for similar instruments  
in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose  
significant value drivers are observable.</span></div><div style='margin-bottom:5pt;padding-left:40.5pt;text-indent:-40.5pt'><span style='color:#000000;font-  
family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%'>Level 3 - Significant inputs to the valuation model are unobservable.</span>  
</div><div style='margin-bottom:5pt'><span style='color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%'>The  
company holds a portfolio of marketable securities to partially fund non-qualified employee benefit plans. A portion of these securities are held in common/collective trust  
funds and are measured at fair value using NAV per share as a practical expedient. Marketable securities accounted for as trading are recorded at fair value on a  
recurring basis and are included in Other non-current assets in the consolidated statements of financial position. Changes in

expense related to the step-up in fair value of PP&E acquired through business combinations is recorded in unallocated corporate expense within operating income as such depreciation is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. Major classes of PP&E and their useful lives are as follows:

| Asset Type                         | Useful Life (Years) |
|------------------------------------|---------------------|
| Land and land improvements         | Indefinite          |
| Buildings                          | 31                  |
| Machinery and other equipment      | 3-10                |
| Leasehold improvements             | 3-10                |
| Property, plant and equipment, net | 3-10                |

Land is not a depreciable asset.

height:120%;position:relative;top:-3.15pt;vertical-align:baseline">(2)</span><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:9pt;font-weight:400;line-height:120%;padding-left:2.2pt">Leasehold improvements are depreciated over the shorter of the useful life of the asset or lease term.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">During the fourth quarter of 2020, the company completed a sale of equipment to a customer on a restricted Aeronautics Systems program for \$444 million. The company previously intended to use the equipment for internal purposes so we recognized the acquisition costs as capital expenditures and included the equipment in PP&E. As we regularly sell this type of equipment to customers in the ordinary course of business, we recorded the sale as a revenue transaction and included the net book value of the equipment in Operating costs and expenses. Although we generally classify proceeds from revenue transactions as cash inflows from operating activities, we recognized the proceeds from this transaction as cash inflows from investing activities, consistent with our prior recognition of the cost to acquire the equipment as capital expenditures. The company received the final cash payment of \$155 million related to the equipment sale during 2022 and included it in Proceeds from sale of equipment to a customer in the consolidated statements of cash flows.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">During the year ended December 31, 2022, the company acquired \$46 million of internal use software through long-term financing directly with the supplier. The software was recorded in PP&E as a non-cash investing activity and the related liability was recorded in long-term debt as a non-cash financing activity. During the year ended December 31, 2023, the company received lease incentives for landlord funded leasehold improvements of \$55 million related to Space Systems real estate leases, which were recorded in PP&E and included in non-cash investing activities.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">On December 28, 2022 the company acquired certain leased land in exchange for company-owned land, which had been used previously for production-related activities at Space Systems. The exchange was accounted for as a nonmonetary transaction, and the acquired land, valued at approximately \$155 million, was recorded in PP&E as a non-cash investing activity. The transaction resulted in a \$96 million gain, which was reflected in operating costs and expenses in the consolidated statements of earnings and comprehensive income.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Non-cash investing activities also include capital expenditures incurred but not yet paid of \$242 million, \$75 million and \$113 million as of December 31, 2024, 2023 and 2022, respectively.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Sale of Minority Investment</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">In July 2023, the company sold its minority investment in an Australian business for AUD \$235 million (the equivalent of \$157 million upon settlement). The sale resulted in a pre-tax gain of \$97 million, which is reflected in Other, net on the consolidated statements of earnings and comprehensive income for the year ended December 31, 2023. Proceeds from the sale are included in investing activities on the consolidated statement of cash flows for the year ended December 31, 2023.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Goodwill and Other Purchased Intangible Assets</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Goodwill and other purchased intangible asset balances are included in the identifiable assets of their assigned business segment. However, the company includes the amortization of other purchased intangible assets in unallocated corporate expense within operating income as such amortization is not allocable to government contracts and not considered part of management's evaluation of segment operating performance. The company's customer-related intangible assets are generally amortized over their respective useful lives based on the pattern in which the future economic benefits of the intangible assets are expected to be consumed. Other intangible assets are generally amortized on a straight-line basis over their estimated useful lives.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Leases</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company leases certain buildings, land and equipment. At contract inception, we determine whether a contract is or contains a lease and whether the lease should be classified as an operating or finance lease. Operating lease balances are included in Operating lease right-of-use assets. Other current liabilities, and Operating lease liabilities in our consolidated statements of financial position.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company recognizes operating lease right-of-use assets and operating lease liabilities based on the present value of the future minimum lease payments over the lease term at commencement date. We use our incremental borrowing rate based on the information available at commencement date to determine the present value of future payments and the appropriate lease classification. Many of our leases include renewal options aligned with our contract terms. We define the initial lease term to include renewal options determined to be reasonably certain. We do not recognize a right-of-use asset and a lease liability for leases with an initial term of 12 months or less; we recognize lease expense for these leases on a straight-line basis over the lease term. We elected the practical expedient to not separate lease components from nonlease components and applied that practical expedient to all material classes of leased assets.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Many of the company's real property lease agreements contain incentives for tenant improvements, rent holidays or rent escalation clauses. For tenant improvement incentives received, if the incentive is determined to be a leasehold improvement owned by the company, we generally record the incentives as a reduction to the right-of-use asset, which reduces rent expense over the lease term. For rent holidays and rent escalation clauses during the lease term, the company records rental expense on a straight-line basis over the term of the lease. For these lease incentives, the company uses the date of initial possession as the commencement date, which is generally when the company is given the right of access to the space and begins to make improvements in preparation for intended use.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Finance leases are not material to our consolidated financial statements and the company is not a lessor in any material arrangements. We do not have any material restrictions or covenants in our lease agreements, sale-leaseback transactions, land easements or residual value guarantees.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Litigation, Commitments and Contingencies</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">We accrue for litigation, commitments and contingencies when management, after considering the facts and circumstances of each matter as then known to management, has determined it is probable a liability will be found to have been incurred and the amount of the loss can be reasonably estimated. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, the low end of the range is recorded. Legal fees are generally expensed as incurred. Due to the inherent uncertainties surrounding gain contingencies, we generally do not recognize potential gains until realized.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Environmental Costs</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">We accrue for environmental liabilities when management determines that, based on the facts and circumstances known to the company, it is probable the company will incur costs to address environmental impacts and the costs are reasonably estimable. When only a range of amounts is reasonably estimable and no amount within the range is more likely than another, we record the low end of the range. The company typically projects environmental costs for up to 30 years, records environmental liabilities on an undiscounted basis, and excludes asset retirement obligations and certain legal costs. At sites involving multiple parties, we accrue environmental liabilities based upon our expected share of liability, considering the financial viability of other liable parties.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Retirement Benefits</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company sponsors various defined benefit pension plans and defined contribution retirement plans covering substantially all employees. In most cases, our defined contribution plans provide for a company match of employee contributions. The company also provides postretirement benefits other than pensions to eligible retirees and qualifying dependents, consisting principally of health care and life insurance benefits.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The liabilities, unamortized prior service credits and annual income or expense of the company's defined benefit pension and OPB plans are determined using methodologies that involve several actuarial assumptions.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Because U.S. government regulations provide for the costs of pension and OPB plans to be charged to our contracts in accordance with applicable FAR and CAS requirements, we calculate retiree benefit plan costs under both FAS and CAS methods. While both FAS and CAS recognize a normal service cost component in measuring periodic pension cost, there are differences in the way the components of annual pension costs are calculated under each method. Measuring plan obligations under FAS and CAS also includes different assumptions and models, such as in estimating returns on plan assets, calculating interest expense and the periods over which gains/losses related to pension assets and actuarial changes are recognized. As a result, annual retiree benefit plan expense amounts for</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">FAS are different from the amounts for CAS in any given reporting period even though the ultimate cost of providing benefits over the life of the plans is the same under each method. CAS retiree benefit plan costs are charged to contracts and are included in segment operating income, and the difference between the service cost component of FAS expense and total CAS expense (the "FAS/CAS operating adjustment") is recorded in operating income at the consolidated company level. Not all net periodic pension expense is recognized in net earnings in the year incurred because it is allocated as production costs and a portion remains in inventory at the end of any given reporting period.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">Actuarial gains and losses are immediately recognized in net periodic benefit cost for FAS through MFM benefit (expense) upon annual remeasurement in the fourth quarter, or on an interim basis as triggering events warrant remeasurement. Prior service credits are recognized as a component of Accumulated other comprehensive loss and amortized into earnings in future periods.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Stock Compensation</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company's stock compensation plans are classified as equity plans. Compensation expense for stock awards is measured at the grant date based on the fair value of the award and is recognized over the vesting period (generally three years), net of estimated forfeitures. The company issues stock awards in the form of restricted performance stock rights and restricted stock rights. The fair value of stock awards and performance stock awards is determined based on the closing market price of the company's common stock on the grant date. The fair value of market-based stock awards is determined at the grant date using a Monte Carlo simulation model. For purposes of measuring compensation expense for performance awards, the number of shares ultimately expected to vest is estimated at each reporting date based on management's expectations regarding the relevant performance criteria. At each reporting date, the number of shares used to calculate compensation expense and diluted earnings per share is adjusted to reflect the number ultimately expected to vest.</span></div><div style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:120%">Accumulated Other Comprehensive Loss</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:120%">The components of accumulated other comprehensive loss, net of tax, are as follows:</span></div><div style="margin-bottom:5pt;margin-top:5pt"><table style="border-collapse:collapse;display:inline-table;margin-bottom:5pt;vertical-align:top;width:100.00%"><tr><td style="width:77.105%"><td style="width:0.1%"><td style="width:0.1%"><td style="width:0.1%"><td style="width:0.601%"><td style="width:1.0%"><td style="width:1.0%"><td style="width:8.996%"><td style="width:0.1%"><td style="width:0.1%"><td style="width:0.601%"><td style="width:0.1%"><td style="width:1.0%"><td style="width:1.0%"><td style="width:8.997%"><td style="width:0.1%"><td style="width:0.1%"><td colspan="3" style="padding-top:3px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:8pt;font-weight:400;line-height:100%"></span></td><td colspan="3" style="padding:0 1pt"><td colspan="3" style="padding:0 1pt"><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:100%">December 31</span></td><td colspan="3" style="padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-height:100%">\$ in millions</span></td><td colspan="3" style="padding:0 1pt"><td colspan="3" style="border-top:1pt solid #000000;padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:100%">2024</span></td><td colspan="3" style="border-top:1pt solid #000000;padding:0 1pt"><td colspan="3" style="border-top:1pt solid #000000;padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%">2023</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%">Cumulative translation adjustment</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000;padding:0 1pt"><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:700;line-height:100%"></span></td></tr></table></div></div>

Times New Roman,sans-serif;font-size:10pt;font-weight:700;line-height:100%> (140) </span>

</td><td style="background-color:#ceefff;border-top:1pt solid #000;padding:2px 1pt 2px 0;text-align:right;vertical-align-bottom"></td><td colspan="3" style="background-color:#ceefff;border-top:1pt solid #000;padding:0 1pt"></td><td style="background-color:#ceefff;border-top:1pt solid #000;padding:2px 0 2px 1pt;text-align:left;vertical-align-bottom"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">\$</span></td><td style="background-color:#ceefff;border-top:1pt solid #000;padding:2px 0;text-align:right;vertical-align-bottom"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">(12)</span></td><td style="background-color:#ffffff;padding:2px 1pt 2px 0;text-align:right;vertical-align-bottom"></td><td colspan="3" style="background-color:#ffffff;padding:2px 0 2px 1pt;text-align:left;vertical-align-bottom"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Total accumulated other comprehensive loss</span></td><td colspan="3" style="background-color:#ceefff;border-bottom:2pt solid #000;border-top:1pt solid #000;padding:0 1pt"></td><td style="background-color:#ceefff;border-bottom:2pt solid #000;border-top:1pt solid #000;padding:2px 0 2px 1pt;text-align:left;vertical-align-bottom"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:700;line-height:100%"></span></td><td style="background-color:#ceefff;border-bottom:2pt solid #000;border-top:1pt solid #000;padding:2px 0;text-align:right;vertical-align-bottom"></td><td colspan="3" style="background-color:#ceefff;border-bottom:2pt solid #000;border-top:1pt solid #000;padding:2px 0;text-align:right;vertical-align-bottom"></td><td colspan="3" style="background-color:#ffffff;padding:2px 1pt 2px 0;text-align:right;vertical-align-bottom"></td><td colspan="3" style="background-color:#ffffff;padding:2px 0 2px 1pt;text-align:left;vertical-align-bottom"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Related Party Transactions</span></td><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">For all periods presented, the company had no material related party transactions.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Accounting Standards Updates</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">On November 27, 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2023-07</span><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-height:120%">Segment Reporting (Topic 280); Improvements to Reportable Segment Disclosures.</span><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Among other new disclosure requirements, ASU 2023-07 requires companies to disclose significant segment expenses that are regularly provided to the chief operating decision maker. We adopted the standard effective January 1, 2024 and applied the disclosure requirements retrospectively to all prior periods presented in the financial statements. Adoption of ASU 2023-07 did not have an impact on the company's consolidated financial position, results of operations and/or cash flows.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">On December 14, 2023, the FASB issued ASU No. 2023-09</span><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-height:120%">Income Taxes (Topic 740); Improvements to Income Tax Disclosures</span><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">. ASU 2023-09 requires companies to disclose, on an annual basis, specific categories in the effective tax rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. In addition, ASU 2023-09 requires companies to disclose additional information about income taxes paid. ASU 2023-09 will be effective for annual periods beginning January 1, 2025 and will be applied on a prospective basis with the option to apply the standard retrospectively. We are evaluating the disclosure impact of ASU 2023-09; however, the standard will not have an impact on the company's consolidated financial position, results of operations and/or cash flows.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">On November 4, 2024, the FASB issued ASU No. 2024-03</span><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-height:120%">Disaggregation of Income Statement Expenses (Subtopic 220-40).</span><span style="color:#000000;font-family: Times New Roman,sans-serif;font size:10pt;font-weight:400;line-height:120%">ASU 2024-03 requires disaggregation of certain expense captions into specified categories in disclosures within the footnotes to the financial statements. ASU 2024-03 will be effective for annual periods beginning January 1, 2027 and interim periods beginning January 1, 2028 and will be applied on a prospective basis with the option to apply the standard retrospectively. We are evaluating the disclosure impact of ASU 2023-09; however, we do not expect the standard will have a material impact on the company's consolidated financial position, results of operations and/or cash flows.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Other accounting standards updates adopted and/or issued, but not effective until after December 31, 2024, are not expected to have a material effect on the company's consolidated financial position, annual results of operations and/or cash flows.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Principles of Consolidation and Reporting</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">The consolidated financial statements (the "financial statements") include the accounts of Northrop Grumman and its subsidiaries and joint ventures or other investments for which we consolidate the financial results. Intercompany accounts, transactions and profits are eliminated in consolidation. Investments in equity securities and joint ventures where the company has significant influence, but not control, are accounted for using the equity method.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">The financial statements are prepared in conformity with U.S. GAAP and in accordance with the rules of the SEC. The financial statements include adjustments of a normal recurring nature considered necessary by management for a fair presentation of the company's consolidated financial position, results of operations and cash flows. For classification of certain current assets and liabilities, we consider the duration of our customer contracts when defining our operating cycle, which is generally longer than one year.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Effective July 1, 2024, the company realigned the Strategic Deterrent Systems (SDS) division, which includes the Ground-Based Strategic Deterrent ("Sentinel") program, from Space Systems to Defense Systems. This realignment is reflected in the financial information contained in this report.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Subsequent Realignment</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">- Effective January 1, 2025, the company realigned the Strike and Surveillance Aircraft Solutions (SSAS) business unit from Defense Systems to Aeronautics Systems. This realignment is not reflected in the financial information contained in this report; it will be reflected in the company's operating results beginning in the first quarter of 2025.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Sales between segments are recorded at values that include intercompany operating income for the performing segment based on that segment's estimated average operating margin rate for external sales. Such intercompany operating income is eliminated in consolidation.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Preparation of the financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements, as well as the reported amounts of sales and expenses during the reporting period. Estimates have been prepared using the most current and best available information; however, actual results could differ materially from those estimates.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Revenue Recognition</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">The majority of our sales are derived from long-term contracts with the U.S. government for the development or production of goods, the provision of services, or a combination of both. The company classifies sales as product or service based on the predominant attributes of each performance obligation. </span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company recognizes revenue for each separately identifiable performance obligation in a contract representing a promise to transfer a distinct good or service to a customer. In most cases, goods and services provided under the company's contracts are accounted for as single performance obligations due to the complex and integrated nature of our products and services. These contracts generally require significant integration of a group of goods and/or services to deliver a combined output. In some contracts, the company provides multiple distinct goods or services to a customer, most commonly when a contract covers multiple phases of the product life cycle (e.g., development, production, sustainment, etc.). In those cases, the company accounts for the distinct contract deliverables as separate performance obligations and allocates the transaction price to each performance obligation based on its relative standalone selling price, which is generally estimated using cost plus a reasonable margin. Warranties are provided on certain contracts, but do not typically provide for services beyond standard assurances and are therefore not considered to be separate performance obligations. Assets recognized from the costs to obtain or fulfill a contract are not material.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">The company recognizes revenue as control is transferred to the customer, either over time or at a point in time. In general, our U.S. government contracts contain termination for convenience and/or other clauses that generally provide the customer rights to goods produced and/or in-process. Similarly, our non-U.S. government contracts generally contain contractual termination clauses or entitle the company to payment for work performed to date for goods and services that do not have an alternative use. For most of our contracts, control is effectively transferred during the period of performance, so we generally recognize revenue over time using the cost-to-cost method (cost incurred relative to total cost estimated at completion). The company believes this represents the most appropriate measurement towards satisfaction of its performance obligations. Revenue for contracts in which the control of goods produced does not transfer until delivery to the customer is recognized at a point in time (i.e., typically upon delivery).</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Contracts are often modified for changes in contract specifications or requirements, which may result in scope and/or price changes. Most of the company's contract modifications are for goods or services that are not distinct in the context of the contract and are therefore accounted for as part of the original performance obligation through a cumulative EAC adjustment.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family: Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:120%">Contract Estimates</span></div><div style="margin-bottom:5pt"><span style="color



[illegible]

serif;font-size:10pt;font-weight:400;line-height:100%;>5,693</span></td><td style="background-color:#ceefff;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td style="background-color:#ceefff;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">\$</span></td><td style="background-color:#ceefff;border-top:1pt solid #000000;padding:2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">215</span></td><td style="background-color:#ceefff;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="2" style="background-color:#ceefff;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">4</span></td><td style="background-color:#ceefff;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">%</span></td><tr><td colspan="3" style="background-color:#fffff;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Advance payments and amounts in excess of costs incurred</span></td><td colspan="2" style="background-color:#fffff;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">700</span></td><td colspan="2" style="background-color:#fffff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3" style="background-color:#fffff;padding:2px 0 1pt 1pt"></td><td colspan="2" style="background-color:#fffff;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">(3)</span></td><td colspan="2" style="background-color:#fffff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">%</span></td><tr><td colspan="3" style="background-color:#ceefff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Net contract assets</span></td><td colspan="2" style="background-color:#ceefff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">\$</span></td><td colspan="2" style="background-color:#ceefff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">1,838</span></td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%"></td><td colspan="2" style="background-color:#ceefff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">1,838</span></td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">338</span></td><td colspan="2" style="background-color:#ceefff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">23</span></td><td colspan="2" style="background-color:#ceefff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">%</span></td><tr><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">General and Administrative Expenses</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">In accordance with applicable FAR and CAS requirements, most general management and corporate expenses incurred at the segment and corporate locations are considered allowable and allocable costs to our U.S. government contracts. Allowable and allocable G&A costs, including independent research and development (IR&D) and bid and proposal (B&P) costs, are allocated on a systematic basis to contracts in progress and are included as a component of total estimated contract costs.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Research and Development</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Company-sponsored research and development activities primarily include efforts related to government programs. Customer-funded research and development activities are charged directly to the related contracts.100000000012000000001200000000.0270.030.033</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Income Taxes</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Provisions for federal and foreign income taxes are calculated on reported earnings before income taxes based on current tax law and include the cumulative effect of any changes in tax rates from those used previously in determining deferred tax assets and liabilities. Such provisions differ from the amounts currently payable because certain items of income and expense are recognized in different periods for financial reporting purposes than for income tax purposes. The company recognizes federal and foreign interest accrued related to unrecognized tax benefits in income tax expense. Federal tax penalties are also recognized as a component of income tax expense.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Uncertain tax positions reflect the company's expected treatment of tax positions taken in a filed tax return, or planned to be taken in a future tax return or claim. Until these positions are sustained by the taxing authorities or the statute of limitations concerning such issues lapses, the company does not generally recognize the tax benefits resulting from such positions and reports the tax effects as a liability for uncertain tax positions in its consolidated statements of financial position.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and tax purposes. Net deferred tax assets and liabilities are classified as non-current in the consolidated statements of financial position.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Cash and Cash Equivalents</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Cash and cash equivalents are comprised of cash in banks and highly liquid instruments with original maturities of three months or less, primarily consisting of bank time deposits and investments in institutional money market funds. Cash in bank accounts often exceeds federally insured limits.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Fair Value of Financial Instruments</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">The company measures the fair value of its financial instruments using observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Level 1 - Quoted prices for identical instruments in active markets.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Level 3 - Significant inputs to the valuation model are unobservable.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">We calculated the fair value of long-term debt using Level 2 inputs, based on interest rates available for debt with terms and maturities similar to the company's existing debt arrangements. Marketable securities accounted for as trading are recorded at fair value on a recurring basis and are included in Other non-current assets in the consolidated statements of financial position. Changes in unrealized gains and losses on trading securities are included in Other, net in the consolidated statements of earnings and comprehensive income. Investments in held-to-maturity instruments with original maturities greater than three months are recorded at amortized cost.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Derivative financial instruments are recognized as assets or liabilities in the financial statements and measured at fair value on a recurring basis. Changes in the fair value of derivative financial instruments that are designated as fair value hedges are recorded in Other, net in the consolidated statements of earnings and comprehensive income, while changes in the fair value of derivative financial instruments that are designated as cash flow hedges are recorded as a</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">component of other comprehensive income until the hedged transaction is recognized in earnings. For derivative financial instruments not designated as hedging instruments, gains or losses resulting from changes in the fair value are reported in Other, net in the consolidated statements of earnings and comprehensive income.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">The company uses derivative financial instruments to manage its exposure to foreign currency exchange risk related to receipts from customers and payments to suppliers denominated in foreign currencies (i.e., foreign currency forward contracts). For foreign currency forward contracts, where model-derived valuations are appropriate, the company utilizes the income approach to determine the fair value using internal models based on observable market inputs such as forward rates, interest rates, our own credit risk and our counterparties' credit risks.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">Inventoried Costs</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%">The company records inventoried costs at the lower of cost or net realizable value. Inventoried costs are categorized into raw materials, work in process, and finished goods. Raw materials are recognized using the average cost method and are generally included in contract cost when allocated to specific contracts. Work in process primarily consists of a) costs associated with specific anticipated contracts or costs incurred in excess of existing contract requirements, which are probable of recovery, and b) costs associated with unsatisfied performance obligations on contracts accounted for using point in time revenue recognition. Finished goods primarily consists of inventory maintained in support of sustainment contracts.</td><td colspan="2" style="background-color:#000000;font-family:Times New Roman,sans-serif;font-size:10pt;font-weight:400;line-height:100%"

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center:vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Asset Allocation Ranges</span></td></tr><tr><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Cash and cash equivalents</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:0 1pt"></td><td colspan="12" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><div style="text-align:center"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>0% - 12%</span></div></td><tr><tr><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Global public equities</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:0 1pt"></td><td colspan="12" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><div style="text-align:center"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>18% - 38%</span></div></td><tr><tr><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Fixed-income securities</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:0 1pt"></td><td colspan="12" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><div style="text-align:center"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>10% - 30%</span></div></td><tr><tr><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Private credit</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:0 1pt"></td><td colspan="12" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><div style="text-align:center"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>10% - 15%</span></div></td><tr><tr><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Generally, investments are valued based on information in financial publications of general circulation, statistical and valuation services, records of security exchanges, appraisal by qualified persons, transactions and bona fide offers. Cash and cash equivalents are predominantly held in money market or short-term investment funds. U.S. and international equities consist primarily of common stocks and institutional common trust funds. Investments in certain equity securities, which include domestic and international securities and registered investment companies, and exchange-traded funds with fixed income strategies are valued at the last reported sales or quoted price on the last business day of the reporting period. Fair values for certain fixed-income securities, which are not exchange-traded, are valued using third-party pricing services.</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Investments in certain equity and fixed-income funds, which include common/collective trust funds, and alternative investments, including hedge funds, opportunistic investments, private equity funds and real estate funds, are valued based on the NAV derived by the investment managers, as a practical expedient, and are described further below.</span></td><td colspan="12" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>U.S. and International equities: Generally, redemption periods are daily, monthly or quarterly with a notice requirement of two days. As of hedge funds: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. Opportunistic investments: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. Private equity funds: The term of each fund is typically 10 or more years and the fund's investors do not have an option to redeem their interest in the fund. Real estate funds: Consist primarily of open-end funds that generally allow investors to redeem their interests in the funds. Certain closed-end real estate funds have terms of 10 or more years. A</span></td><tr><tr><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>Stock Compensation</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>The company's stock compensation plans are classified as equity plans. Compensation expense for stock awards is measured at the grant date based on the fair value of the award and is recognized over the vesting period (generally three years), net of estimated forfeitures. The company issues stock awards in the form of restricted performance stock rights and restricted stock rights. The fair value of stock awards and performance stock awards is determined based on the closing market price of the company's common stock on the grant date. The fair value of market-based stock awards is determined at the grant date using a Monte Carlo simulation model. For purposes of measuring compensation expense for performance awards, the number of shares ultimately expected to vest is estimated at each reporting date based on management's expectations regarding the relevant performance criteria. At each reporting date, the number of shares used to calculate compensation expense and diluted earnings per share is adjusted to reflect the number ultimately expected to vest.</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>The components of accumulated other comprehensive loss, net of tax, are as follows:</span></td><td colspan="12" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><table style="border-collapse:collapse;display:inline-table;margin-bottom:5pt;vertical-align:top;width:100.000%"><tr><td style="width:1.0%"></td><td style="width:77.105%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.601%"></td><td style="width:0.1%"></td><td style="width:1.0%"></td><td style="width:0.1%"></td><td style="width:8.996%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.601%"></td><td style="width:0.1%"></td><td style="width:1.0%"></td><td style="width:0.1%"></td><td style="width:8.997%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td colspan="3" style="padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:8pt;font-weight:400;line-height:100%;></span></td><td colspan="9" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>December 31</span></td><tr><tr><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2023</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2022</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2021</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2020</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2019</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2018</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2017</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2016</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',sans-serif;font-size:10pt;font-weight:400;line-height:100%;>2015</span></td><td colspan="3" style="background-color:#cceeef;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:'Times New Roman',

**January 1, 2027 and interim periods beginning January 1, 2028 and will be applied on a prospective basis with the option to apply the standard retrospectively.** We are evaluating the disclosure impact of ASU 2023-09; however, we do not expect the adoption of this standard to have a material impact on our consolidated financial position, results of operations and/or cash flows.

Other accounting standards adopted and/or issued, but not effective until after December 31, 2024, are not expected to have a material effect on the company's consolidated financial position, annual results of operations and/or cash flows.

**EARNINGS PER SHARE, SHARE REPURCHASES AND DIVIDENDS ON COMMON STOCK**

Basic Earnings Per Share

We calculate basic earnings per share by dividing net earnings by the weighted-average number of shares of common stock outstanding during each period.

Diluted Earnings Per Share

Diluted earnings per share include the dilutive effect of awards granted to employees under stock-based compensation plans. The dilutive effect of these securities totaled 0.3 million, 0.5 million and 0.7 million shares for the years ended December 31, 2024, 2023 and 2022, respectively.

Share Repurchases

Share Repurchase Programs

On January 25, 2021, the company's board of directors authorized a share repurchase program of up to \$3.0 billion in share repurchases of the company's common stock (the "2021 Repurchase Program"). Repurchases under the 2021 Repurchase Program commenced in October 2021 and were completed in April 2023.

On January 24, 2022, the company's board of directors authorized a new share repurchase program of up to an additional \$2.0 billion in share repurchases of the company's common stock (the "2022 Repurchase Program"). Repurchases under the 2022 Repurchase Program commenced in April 2023 and were completed in February 2024.

On December 6, 2023, the company's board of directors authorized a new share repurchase program of up to an additional \$2.5 billion in share repurchases of the company's common stock (the "2023 Repurchase Program"). Repurchases under the 2023 Repurchase Program commenced in February 2024 upon completion of the 2022 Repurchase Program. As of December 31, 2024, repurchases under the 2023 Repurchase Program totaled \$1.4 billion; \$1.1 billion remained under this share repurchase authorization. By its terms, the 2023 Repurchase Program will expire when we have used all authorized funds for repurchases.

On December 11, 2024, the company's board of directors authorized a new share repurchase program of up to an additional \$3.0 billion in share repurchases of the company's common stock (the "2024 Repurchase Program"). Repurchases under the 2024 Repurchase Program will commence upon completion of the 2023 Repurchase Program and will expire when we have used all authorized funds for repurchases. As of December 31, 2024, there have been no repurchases under the 2024 Repurchase Program and the company's total outstanding share repurchase authorization was \$4.1 billion.

Accelerated Share Repurchase Agreements

During the first quarter of 2023, the company entered into an accelerated share repurchase (ASR) agreement with Bank of America, N.A. (Bank of America) to repurchase \$500 million of the company's common stock as part of the 2021 and 2022 Repurchase Programs. Under the agreement, we made a payment of \$500 million to Bank of America and received an initial delivery of 0.9 million shares valued at \$400 million that were immediately canceled by the company. The remaining balance of \$100 million was settled on April 27, 2023 with a final delivery of 0.2 million shares from Bank of America. The final average purchase price was \$458.28 per share.

During the first quarter of 2024, the company entered into an ASR agreement with Morgan Stanley & Co. LLC (Morgan Stanley) to repurchase \$1.0 billion of the company's common stock as part of the 2022 Repurchase Program. Under the agreement, we made a payment of \$1.0 billion to Morgan Stanley and received an initial delivery of 1.8 million shares valued at \$800 million that were immediately canceled by the company. The remaining balance of \$200 million was settled on May 1, 2024 with a final delivery of 0.4 million shares from Morgan Stanley. The final average purchase price was \$455.73 per share.

Share repurchases take place from time to time, subject to market and regulatory conditions and management's discretion, in the open market or in privately negotiated transactions. The company retires its common stock upon repurchase and, in the periods presented, has not made any purchases of common stock other than in connection with these publicly announced repurchase programs.

The table below summarizes the company's share repurchases to date under the authorizations described above:

|                | 2024 | 2023 | 2022 | Total |
|----------------|------|------|------|-------|
| Shares Retired | 1.8  | 1.8  | 0.9  | 4.5   |
| (in millions)  |      |      |      |       |

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<span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Various</span></td><td colspan="3"><span style="background-color:#fffff;padding:0 1pt"&></td><td colspan="2"><span style="background-color:#fffff;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:700;line-height:100%">264</span></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%"></span></td><td style="background-color:#fffff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="2"><span style="background-color:#fffff;padding:0 1pt"&></td><td colspan="2"><span style="background-color:#fffff;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">332</span></td><td style="background-color:#fffff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td></tr><tr><td colspan="3"><span style="background-color:#ceeff;padding:2px 1pt;text-align:left;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Debt issuance costs</span></td><td colspan="3"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#ceeff;padding:2px 1pt 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:700;line-height:100%">(B3)</span></td><td style="background-color:#ceeff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="2"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#ceeff;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">(69)</span></td><td style="background-color:#ceeff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><tr><tr><td colspan="3"><span style="background-color:#ceeff;padding:2px 1pt;text-align:left;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Total long-term debt</span></td><td colspan="3"><span style="background-color:#fffff;border-top:1pt solid #000000;padding:2px 1pt;text-align:left;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Total long-term debt</span></td><td colspan="3"><span style="background-color:#fffff;border-top:1pt solid #000000;padding:0 1pt"&></td><td colspan="2"><span style="background-color:#fffff;border-top:1pt solid #000000;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#fffff;border-top:1pt solid #000000;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#fffff;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:700;line-height:100%">16.274</span></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%"></span></td><td style="background-color:#fffff;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="background-color:#fffff;border-top:1pt solid #000000;padding:0 1pt"&></td><td colspan="2"><span style="background-color:#fffff;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">1.582</span></td><td style="background-color:#ceeff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="2"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#ceeff;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">1.582</span></td><td style="background-color:#ceeff;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="2"><span style="background-color:#ceeff;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#ceeff;padding:2px 0 2px 1pt;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Long-term debt, net of current portion</span></td><td colspan="3"><span style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:0 1pt"&></td><td colspan="3"><span style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-align:bottom"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">14.692</span></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%"></span></td><td style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 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colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">13.786</span></td><td style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3"><span style="margin-bottom:5pt;margin-top:5pt"></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:5.85pt;font-weight:400;line-height:120%;position:relative;top:-3.15pt;vertical-align:baseline">(1)</span></td><td colspan="3"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:9pt;font-weight:400;line-height:120%">The current portion of long-term debt is recorded in Other current liabilities in the consolidated statements of financial position.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">The estimated fair value of long-term debt was \$15.3 billion and \$13.4 billion as of December 31, 2024 and 2023, respectively. We calculated the fair value of long-term debt using Level 2 inputs, based on interest rates available for debt with terms and maturities similar to the company's existing debt arrangements.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Indentures underlying long-term debt issued by the company or its subsidiaries contain various restrictions with respect to the issuer, including one or more restrictions relating to limitations on liens, sale-leaseback arrangements and funded debt of subsidiaries. The majority of these fixed rate notes and debentures are subject to redemption at the company's discretion at any time prior to maturity in whole or in part at the principal amount plus any make-whole premium and accrued and unpaid interest. Interest on these fixed rate notes and debentures are payable semi-annually in arrears.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Total interest payments, net of interest received and capitalized, were \$475 million, \$437 million and \$474 million for the years ended December 31, 2024, 202

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reaches the ultimate rate of compensation increase

Rate of compensation increase

Initial health care cost trend rate assumed for the next year

Year that the health care cost trend rate reaches the ultimate trend rate

Plan Assets and Investment Policy

Plan assets are invested in various asset classes that are expected to produce a sufficient level of diversification and investment return over the long term. Liability studies are conducted on a regular basis to provide guidance in setting investment goals with an objective to balance risk. Risk targets are established and monitored against acceptable ranges.

Our investment policies and procedures are designed to ensure the plans' investments comply with ERISA. Guidelines are established defining permitted investments within each asset class. Derivatives are used for transitioning assets, asset class rebalancing, managing currency risk and for management of fixed-income and alternative investments.

For the majority of the plans' assets, the investment policies require that the asset allocation be maintained within the following ranges as of December 31, 2024:

|                           | Asset Allocation Ranges |
|---------------------------|-------------------------|
| Cash and cash equivalents | 18% - 33%               |
| Alternative investments   | >10%                    |
| Fixed-income securities   | >35%                    |
| Global public equities    | >30%                    |
| Private credit            | >10%                    |
| Real estate               | >10%                    |
| Commodities               | <5%                     |
| Hedge funds               | <5%                     |
| Other                     | <5%                     |

The table below provides the fair values of the company's pension and Voluntary Employees' Beneficiary Association (VEBA) trust plan assets at December 31, 2024 and 2023, by asset category. The table also identifies the level of inputs used to determine the fair value of assets in each category. See Note 1 for the definitions of these levels. Certain investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient are not required to be categorized in the fair value hierarchy table. The total fair value of these investments is included in the table below to permit reconciliation of the fair value hierarchy to amounts presented in the funded status table. As of December 31, 2024 and 2023, there were no investments expected to be sold at a value materially different than NAV.

|                           | Fair Value Hierarchy |
|---------------------------|----------------------|
| Cash and cash equivalents | Level 1              |
| Fixed-income securities   | Level 1              |
| Global public equities    | Level 1              |
| Private credit            | Level 1              |
| Real estate               | Level 1              |
| Commodities               | Level 1              |
| Hedge funds               | Level 1              |
| Other                     | Level 1              |

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**serif;font-size:10pt;font-weight:400;line-height:100%;></span></td><td style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td><td colspan="3" style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:0 1pt"></td><td style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0 2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%;"></span></td><td style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 0;text-align:right;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%;"></span></td><td colspan="3" style="background-color:#fffff;border-bottom:2pt solid #000000;border-top:1pt solid #000000;padding:2px 1pt 2px 0;text-align:right;vertical-align:bottom"></td></tr>**

**<table><div><div style="margin-bottom:5pt;margin-top:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">There were no transfers of plan assets into or out of Level 3 of the fair value hierarchy during the years ended December 31, 2024 and 2023.</div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Generally, investments are valued based on information in financial publications of general circulation, statistical and valuation services, records of security exchanges, appraisal by qualified persons, transactions and bona fide offers. Cash and cash equivalents are predominantly held in money market or short-term investment funds. U.S. and international equities consist primarily of common stocks and institutional common trust funds. Investments in certain equity securities, which include domestic and international securities and registered investment companies, and exchange-traded funds with fixed income strategies are valued at the last reported sales or quoted price on the last business day of the reporting period. Fair values for certain fixed-income securities, which are not exchange-traded, are valued using third-party pricing services.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Derivatives and other assets include derivative assets with a fair value of \$107 million and \$172 million, derivative liabilities with a fair value of \$123 million and \$101 million, and net notional amounts of \$9.2 billion and \$4.9 billion, as of December 31, 2024 and 2023, respectively. Derivative instruments may include exchange traded futures contracts, interest rate swaps, options on futures and swaps, currency contracts, total return swaps and credit default swaps. Notional amounts do not quantify risk or represent assets or liabilities of the pension and VEBA trusts, but are used in the calculation of cash settlement under the contracts. Certain derivative financial instruments within the pension trust are subject to master netting agreements with certain counterparties.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Investments in certain equity and fixed-income funds, which include common/collective trust funds, and alternative investments, including hedge funds, opportunistic investments, private equity funds and real estate funds, are valued based on the NAV derived by the investment managers, as a practical expedient, and are described further below:</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">U.S. and International equities: Generally, redemption periods are daily, monthly or quarterly with a notice requirement less than 90 days. As of December 31, 2024 and 2023, there were no unfunded commitments.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Fixed-income funds: Generally, redemption periods are daily, monthly or quarterly with a notice requirement of two days. As of December 31, 2024 and 2023 there were no unfunded commitments.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Hedge funds: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. As of December 31, 2024 and 2023, unfunded commitments were \$6 million.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Opportunistic investments: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. As of December 31, 2024 and 2023, unfunded commitments were \$1.3 billion and \$1.6 billion, respectively.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Private equity funds: The term of each fund is typically 10 or more years and the fund's investors do not have an option to redeem their interest in the fund. As of December 31, 2024 and 2023, unfunded commitments were \$1.6 billion and \$1.9 billion, respectively.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Real estate funds: Consist primarily of open-end funds that generally allow investors to redeem their interests in the funds. Certain closed-end real estate funds have terms of 10 or more years. As of December 31, 2024 and 2023, unfunded commitments were \$24 million and \$28 million, respectively.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">Private credit: Consist of closed-end funds with a 5-10 year life as well as funds that allow redemption requests subject to the liquidity limitations of the underlying investments. As of December 31, 2024, unfunded commitments were \$721 million.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">At December 31, 2024 and 2023, the defined benefit pension trust held \$1 million and \$0, respectively, of Northrop Grumman common stock. At December 31, 2024 and 2023, the VEBA trust did not hold any Northrop Grumman common stock.</span></div><div style="margin-bottom:5pt"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:700;line-height:120%">Benefit Payments</span></div><div><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:120%">The following table reflects estimated future benefit payments for the next ten years, based upon the same assumptions used to measure the benefit obligation, and includes expected future employee service, as of December 31, 2024.</span></div><div style="margin-top:5pt"><table style="border-collapse:collapse;display:inline-table;margin-bottom:5pt;vertical-align:text-bottom;width:100.000%"><tr><td style="width:1.0%"></td><td style="width:0.1%"></td><td style="width:0.601%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:52.746%"></td><td style="width:13.483%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.601%"></td><td style="width:0.1%"></td><td style="width:1.0%"></td><td style="width:13.483%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:0.1%"></td><td style="width:13.485%"></td><td style="width:0.1%"></td></tr><tr><td colspan="3" style="padding:2px 1pt;text-align:left;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-style:italic;font-weight:400;line-height:100%">\$ in millions</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Pension Plans</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Medical and Life Plans</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">Total</span></td></tr><tr><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">2025</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">2026</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">2027</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">2028</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">2029</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">2030</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight:400;line-height:100%">2031</span></td><td colspan="3" style="padding:0 1pt"></td><td colspan="3" style="padding:2px 1pt;text-align:center;vertical-align:bottom"><span style="color:#000000;font-family:Times New Roman;sans-serif;font-size:10pt;font-weight**

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[illegible]

[illegible]

ISO-178-F8-WZ-T8W-UUWUULSUZH7TCBBP9KONC(MJEBYSYS\*4313%TVVOO54-ZE\*2%(N.MFV1.XTF6;&085290&(&S>4ZE MHAT=Q'D79)C4GW2-K3YV4;USHH-CPW#)0&M1-V1.039K"71<141 MKV&06T4&S=B;=41HC3ZSC\*HH&#>..33G.3B-QO QO70R-CL.MBYCV5H M/W1B.8SY%0IFGYQJPD<0YT0/G'Q>..R7VH7.K7%>?RTG)0%54M19V M8&K7UYN<@AAY0B4ET-3X-XA'E4H IN-V-IRJO-1W45HDE-VHB95F<IS'PW213YH MD.(PIFYH1)~#5LIFSLP&U>..L-O-D>@<VYESH4\*GX&HW7-3P.OL&VY<..E M2<=>RX#PIKX5H6-1SH7H0DQ?<UJ\*TH46&3<..@<N1\*319I9V MPAPH+GN.#?N'R0%>0K(F12)60AS4&=2B M @WB-+T/L F<..8K.SC1\*FEB&IK6C<+UJ>EHGMF&QJ2S+H 1 M02R<=O9F9C4H1L.TC9TNT(L)19I9V(FH=>OC=>..3'Q'HE M3.N.3 \$-G->A9-7Q9-W@LY@8?""R CLCH.H.3I2 8EOH5<..G'N:>0P0S-MTC1.X&P&#BZ.C4U4K@T66RW74J9F<G1MH@1"ZRX@DIBBJP1-J23.SW3)G.M-?>P<HW2GGW+XG&NEQ&KET>><6C(Q5 4.3P-0EAHT<U>..5.7E.BU58F<M\*M%>M%G/O7-N?>WV<+22-WW619%>X"JP4XR=X1VDY^&..0N<=WWPD29SU/CN&M(NHA210N10%47#N&D1+)>..C'=I713P0#8?>31D>VE>S17OZU.W4DM.Q MMH2-2A(8<#KWP&45P ME2-2#930R..2P(0%<PYNH60-BR#D1+>@3R<0JE M+XZ@AMUN&K&ZPTFN0=IHMM MBFXYOPV1@16IZE&VY<@<VWRSQ0N4)Q\*YH9.RA-2/21(OX).9G4A(CI&# MPA71L.V@&0E"UPWV/OPM<7P3"9Z0A1U4PHVHL&GDVH<@<Z.JM0<6 M5&E&CQ10VW-8W1VB<2WP1P=I4(7W3.OC1A<@<PIPE2+..K@R7Y.21.M4TPU @H<=>010)<?<K/0<+%(K8)6&+IBLJ0 MBHVK<12QIMUY+I101(Q0S32P/C/N&V1&S%<ACM71<3.WE\$<4J\_B#UF M1-GH1<ICLT<@>2<1<021QTB18R<KJNH<@<QL8.WKSYVY.M4M474.WW1BOEWHS4BIQ%=>@Q81A.FHH(QG%M3LZ.98MD1<JR-CP108 M5#E0B<03B<9F13+55J(X)SRR<Z1QZ4+4 FYC(XM%OZ1<=SG<+7MYU.MTLOEFC<@<YOW41<1+>..L-ZAL(R&=>IXA<@<#4S4A<B@WJN17B4H%6B:0Q8<0NT.X@EFP Q1G<1S0PE3ICV M8'E19<9>>U TJJ1401.4.240..3 1.3:CTWOQ1"Pl+>OGR#1&Q90H L= M=>P66S<@PFPIFF<1@P.1+1.63\*<=IY2&P<=>EUH.HWF15D)1&ZJDI MC<5H10+>..PZ7E2=WO8.89.7E9IPV.1S<X M02\$<=15.OJH9H131.N QM99A41.6RPGQOT9V3V/MW146M<P..PZTWO1 M%791B7E4 2%U (S-WBIB<@QO@<..8M1 <=3X.YC<S1"1D31LH9S2%<115 M1<U>Y24SU1P1K<3"99%>U(02\$800<0Q0BF24R K<2.<8#>8OZ1A.7L M-SB419U1<C18+410Q10UKWH<@<23E<141O1H17P\*08NO.1 I(GE11%G.M450A1P1.OX49D19=5I@=41<#>X&E<XG1F&6"9X<9L.H1Q15OY<+2>ASU-8 M.2\$<=2\$S.C.2IEF1)2\$<912<=>..L0S4Y10%65Z\$>..F<=<6DQ202\*ESI#1L%<EY MV2HR19.17.502144.01.4#>#>#>CCD+R-41(6ZE+1%<K#Q2<0<CF(41.MH(M1>22LFV1<5PC10H M1C/B1@TW1.N=>1<C1..I1=>HCWH10.OWBKS2 MX1GYLWT 9WB\_B@<5 5P2>?>NVD)DB 14>..S@<AUG8U1P1<2=2%<XDN"NB>5757LQ9.3&S0\$A1F<K3..SM<0#>#>PTGHA<B1<5 M0H@0PIOPV\*XSGHJASONH\$>6QWV&DSR&E<X X0GMGW326&@>T@X77011HXZ>B31>6-6LPSH.93K21<Q>B41<RX2P1Q018&G%T5%<@<MB&H M#(#+N4.P@%A1Y4.S%<X1B1.0+1J1..5UCV1+00-M#Z\$41"S<=>#<? UW&G M.UU2 D.08YU1P1<1>Y<X<@>..110 B1>D11FR&TAF.MCYT<36W M1<Z>..01..M%GC<DV8@G=11+G&11(SD51ZNS<6%<23E<141O1H17P\*08NO.1 I(GE11%G.M450A1P1.OX49D19=5I@=41<#>X&E<XG1F&6"9X<9L.H1Q15OY<+2>ASU-8 M.2\$<=2\$S.C.2IEF1)2\$<912<=>..L0S4Y10%65Z\$>..F<=<6DQ202\*ESI#1L%<EY MV2HR19.17.502144.01.4#>#>#>CCD+R-41(6ZE+1%<K#Q2<0<CF(41.MH(M1>22LFV1<5PC10H M1C/B1@TW1.N=>1<C1..I1=>HCWH10.OWBKS2 MX1GYLWT 9WB\_B@<5 5P2>?>NVD)DB 14>..S@<AUG8U1P1<2=2%<XDN"NB>5757LQ9.3&S0\$A1F<K3..SM<0#>#>PTGHA<B1<5 M0H@0PIOPV\*XSGHJASONH\$>6QWV&DSR&E<X X0GMGW326&@>T@X77011HXZ>B31>6-6LPSH.93K21<Q>B41<RX2P1Q018&G%T5%<@<MB&H M#(#+N4.P@%A1Y4.S%<X1B1.0+1J1..5UCV1+00-M#Z\$41"S<=>#<? UW&G M.UU2 D.08YU1P1<1>Y<X<@>..110 B1>D11FR&TAF.MCYT<36W M1<Z>..01..M%GC<DV8@G=11+G&11(SD51ZNS<6%<23E<141O1H17P\*08NO.1 I(GE11%G.M450A1P1.OX49D19=5I@=41<#>X&E<XG1F&6"9X<9L.H1Q15OY<+2>ASU-8 M.2\$<=2\$S.C.2IEF1)2\$<912<=>..L0S4Y10%65Z\$>..F<=<6DQ202\*ESI#1L%<EY MV2HR19.17.502144.01.4#>#>#>CCD+R-41(6ZE+1%<K#Q2<0<CF(41.MH(M1>22LFV1<5PC10H M1C/B1@TW1.N=>1<C1..I1=>HCWH10.OWBKS2 MX1GYLWT 9WB\_B@<5 5P2>?>NVD)DB 14>..S@<AUG8U1P1<2=2%<XDN"NB>5757LQ9.3&S0\$A1F<K3..SM<0#>#>PTGHA<B1<5 M0H@0PIOPV\*XSGHJASONH\$>6QWV&DSR&E<X X0GMGW326&@>T@X77011HXZ>B31>6-6LPSH.93K21<Q>B41<RX2P1Q018&G%T5%<@<MB&H M#(#+N4.P@%A1Y4.S%<X1B1.0+1J1..5UCV1+00-M#Z\$41"S<=>#<? UW&G M.UU2 D.08YU1P1<1>Y<X<@>..110 B1>D11FR&TAF.MCYT<36W M1<Z>..01..M%GC<DV8@G=11+G&11(SD51ZNS<6%<23E<141O1H17P\*08NO.1 I(GE11%G.M450A1P1.OX49D19=5I@=41<#>X&E<XG1F&6"9X<9L.H1Q15OY<+2>ASU-8 M.2\$<=2\$S.C.2IEF1)2\$<912<=>..L0S4Y10%65Z\$>..F<=<6DQ202\*ESI#1L%<EY MV2HR19.17.502144.01.4#>#>#>CCD+R-41(6ZE+1%<K#Q2<0<CF(41.MH(M1>22LFV1<5PC10H M1C/B1@TW1.N=>1<C1..I1=>HCWH10.OWBKS2 MX1GYLWT 9WB\_B@<5 5P2>?>NVD)DB 14>..S@<AUG8U1P1<2=2%<XDN"NB>5757LQ9.3&S0\$A1F<K3..SM<0#>#>PTGHA<B1<5 M0H@0PIOPV\*XSGHJASONH\$>6QWV&DSR&E<X X0GMGW326&@>T@X77011HXZ>B31>6-6LPSH.93K21<Q>B41<RX2P1Q018&G%T5%<@<MB&H M#(#+N4.P@%A1Y4.S%<X1B1