

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2015
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
(State or other jurisdiction of
incorporation or organization)

80-0640649
(I.R.S. Employer
Identification Number)

**2980 Fairview Park Drive
Falls Church, Virginia**
(Address of principal executive offices)

22042
(Zip code)

(703) 280-2900
(Registrant's telephone number, including area code)
Securities registered pursuant to section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, \$1 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes

No *

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.

Yes *

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.

Yes

No *

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files).

Yes

No *

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer *

Non-accelerated filer *

Smaller reporting company *

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes *

No

As of June 30, 2015, 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 \$29.8 billion.

As of January 28, 2016, 180,943,220 shares of common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Northrop Grumman Corporation's Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A for the 2016 Annual Meeting of Stockholders are incorporated by reference in Part III of this Form 10-K.

NORTHROP GRUMMAN CORPORATION

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PART I

Item 1. Business

HISTORY AND ORGANIZATION

History

Northrop Grumman Corporation (herein referred to as “Northrop Grumman,” the “company,” “we,” “us,” or “our”) is a leading global security company. We offer a broad portfolio of capabilities and technologies that enable us to deliver innovative products, systems and solutions for applications that range from undersea to outer space and into cyberspace. We provide products, systems and solutions in unmanned systems; cyber; command, control, communications and computers (C4), intelligence, surveillance, and reconnaissance (C4ISR); strike aircraft; and logistics and modernization to government and commercial customers worldwide. We participate in many high-priority defense and government programs in the United States (U.S.) and abroad. We conduct most of our business with the U.S. Government, principally the Department of Defense (DoD) and intelligence community. We also conduct business with foreign, state and local governments and commercial customers. For a discussion of risks associated with our operations, see Risk Factors in Part I, Item 1A.

The company originally was formed in Hawthorne, California in 1939, as Northrop Aircraft Incorporated and was reincorporated in Delaware in 1985, as Northrop Corporation. Northrop Aircraft Incorporated was a principal developer of flying wing technology, including the B-2 Stealth Bomber. The company developed into one of the largest defense contractors in the world through a series of acquisitions, as well as organic growth. In 1994, we acquired Grumman Corporation (Grumman), after which time the company was renamed Northrop Grumman Corporation. Grumman was a premier military aircraft systems integrator and builder of the Lunar Module that first delivered humans to the surface of the moon. In 1996, we acquired the defense and electronics businesses of Westinghouse Electric Corporation, a world leader in the development and production of sophisticated radar and other electronic systems for the nation’s defense, civil aviation, and other U.S. and international applications. In 2001, we acquired Litton Industries, a global electronics and information technology company, and one of the nation’s leading full service shipbuilders. In 2002, we acquired TRW Inc., a leading developer of military and civil space systems and satellite payloads, as well as a leading global integrator of complex, mission-enabling systems and services. In 2011, the company completed the spin-off to its shareholders of Huntington Ingalls Industries, Inc. (HII). HII operates our former Shipbuilding business, which was acquired in 2001, through the acquisitions of Newport News Shipbuilding and Litton Industries.

Organization

At December 31, 2015, the company was aligned into four sectors: Aerospace Systems, Electronic Systems, Information Systems, and Technical Services.

Subsequent Realignment - Effective January 1, 2016, the company streamlined our sectors from four to three to better align our business with the evolving needs of our customers and enhance innovation across the company. Two new sectors were created by merging elements of our former Electronic Systems, Information Systems and Technical Services sectors. The new Mission Systems sector is composed of the majority of our former Electronic Systems sector and the businesses from our former Information Systems sector focused on the development of new capabilities for our military and intelligence customers. The services portfolio in the former Information Systems sector was combined with the former Technical Services sector to form the new Technology Services sector. Among other operations that were realigned, the military and civil space hardware business in Azusa, California, previously reporting to the Electronic Systems sector, moved to the Aerospace Systems sector, and the electronic attack business previously in the Aerospace Systems sector moved to the Mission Systems sector. This realignment is not reflected in the business descriptions below or in any of the financial information contained in this report.

AEROSPACE SYSTEMS

Aerospace Systems, headquartered in Redondo Beach, California, is a leader in the design, development, integration and production of manned aircraft, unmanned systems, spacecraft, high-energy laser systems, microelectronics and other systems and subsystems. Aerospace Systems’ customers, primarily U.S. Government agencies, use these systems in mission areas including intelligence, surveillance and reconnaissance (ISR), communications, battle management, strike operations, electronic warfare, earth observation, satellite communications, space science and space exploration. The segment consists of four business areas: Unmanned Systems, Military Aircraft Systems, Space Systems, and Strategic Programs & Technology.

Unmanned Systems - designs, develops, manufactures, and integrates ISR unmanned systems for tactical and strategic missions. Key ISR programs include the RQ-4 Global Hawk reconnaissance system, a proven high-altitude

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long-endurance system providing near real-time high resolution imagery of large geographical areas; the Triton aircraft system providing real-time ISR over vast ocean and coastal regions; the trans-Atlantic North Atlantic Treaty Organization (NATO) Alliance Ground Surveillance (AGS) system for multinational theater operations, peacekeeping missions, and disaster relief efforts; the Fire Scout aircraft system providing unprecedented situational awareness and precision targeting support; the Navy Unmanned Combat Air System demonstrating an unmanned combat air vehicle for carrier-based operations; and the Common Mission Management System, providing high performance service based on ground control solutions enabling unmanned mission capabilities.

Military Aircraft Systems - designs, develops, manufactures, and integrates airborne C4ISR, electronic warfare mission systems, and long range strike and tactical aircraft systems. Key airborne C4ISR programs include the E-2D Advanced Hawkeye and Joint Surveillance Target Attack Radar System (JSTARS). Electronic warfare includes the EA-18G Growler and EA-6B Prowler airborne electronic attack weapon systems in addition to the design, development, and integration of laser weapon systems for air, sea, and ground platforms. This business area also designed, developed and manufactured the B-2 Spirit bomber and now provides sustainment and modernization services for the B-2, the nation's most advanced long range strike aircraft system. Tactical aircraft includes the design, development, manufacture and integration of F/A-18 aft sections and F-35 center sections.

Space Systems - designs, develops, manufactures, and integrates spacecraft systems, subsystems, sensors and communications payloads in support of space science and C4ISR. Key programs include the James Webb Space Telescope, a large infrared telescope being built for the National Aeronautics and Space Administration that will be deployed in space to study the origins of the universe; Advanced Extremely High Frequency payloads providing survivable, protected communications to U.S. forces; and restricted programs.

Strategic Programs & Technology - creates and matures advanced technologies and innovative concepts to provide affordable solutions addressing current and future customer needs. This business area maintains a broad portfolio of contracts ranging from basic research to the development of technologies, components, prototypes, and initial operational systems across the air, land and space domains.

ELECTRONIC SYSTEMS

Electronic Systems, headquartered in Linthicum, Maryland, is a leader in the design, development, manufacture and support of solutions for sensing, understanding, anticipating and controlling the operating environment for our global military, civil and commercial customers. Electronic Systems provides a variety of defense electronics and systems, airborne fire control radars, situational awareness systems, early warning systems, electronic warfare systems, air defense radars and management systems, navigation systems, communications systems, marine power and propulsion systems, space systems and logistics services. The segment consists of four business areas: Airborne Intelligence, Surveillance, Reconnaissance & Targeting Systems, Space Intelligence, Surveillance, & Reconnaissance Systems, Land & Self Protection Systems, and Navigation & Maritime Systems.

Airborne Intelligence, Surveillance, Reconnaissance & Targeting Systems - delivers products and services for airborne and ground-based surveillance, multi-sensor processing, analysis and dissemination for combat units and national agencies, both U.S. and international. These systems provide battle space awareness, command and control, combat avionics (fire control radars, multi-function apertures and pods), and airborne electro-optical/infrared (EO/IR) targeting systems. Key programs include airborne fire control radars such as the Scalable Agile Beam Radar (SABR), which provides Active Electronically Scanned Array (AESA) capabilities for U.S. and international fighters; the F-35 fire control radar, a multi-function AESA radar for the U.S. Armed Forces and a large number of international partners; electro-optical infrared (EO/IR) systems such as the LITENING targeting pod and the Distributed Aperture System (DAS), a 360 degree spherical situational awareness system; and airborne surveillance radars such as the Multirole and Electronically Scanned Array (MESA) for Airborne Early Warning & Control (AEW&C), which provides air-to-air and air-to-surface coverage.

Space Intelligence, Surveillance, & Reconnaissance Systems - delivers products and services for radar and EO/IR space satellite applications for the DoD and national intelligence agencies. These systems provide missile warning, missile defense, situational awareness, and ground software systems for intelligence community decision makers. Key programs include space systems such as the Space-Based Infrared System (SBIRS), which provides data for missile surveillance, missile defense, technical intelligence and battlespace characterization; Advanced Technology Microwave Sounder (ATMS) for environmental sensing on JPSS satellites; Joint Tactical Army Ground Station (JTAGS), Joint OPIR Ground (JOG) solutions; and a large number of restricted programs for the intelligence community.

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Land & Self Protection Systems - delivers products, systems and services that support ground-based, helicopter and fixed wing platforms (manned and unmanned) with sensor and protection systems. A major product line of this business area consists of systems that perform threat detection and countermeasures that defeat infrared and radio frequency (RF) guided missile and tracking systems. This business area also provides integrated electronic warfare capability, communications and intelligence systems, unattended ground sensors, automatic test equipment, advanced threat simulators, ground-based air defense and multi-function radars, situational awareness systems, laser/electro-optical systems and digitized and open architecture cockpits and applications. Key programs include the Ground/Air Task Oriented Radar (G/ATOR), which is a ground-based multi-mission radar designed to detect and track a wide variety of threats; the TPS-78 ground-based radar, which provides air defense and air surveillance for the global market; the Large Aircraft Infrared Countermeasures (LAIRCM), which is an infrared countermeasure system designed to protect aircraft against man-portable (shoulder-launched) infrared-guided surface-to-air missiles; and the AN/APR-39, which provides rapid identification and continuous radar threat warning for today's complex battlefields.

Navigation & Maritime Systems - delivers products and services to U.S. and international defense, civil and commercial customers supporting smart navigation, shipboard radar surveillance, ship control, machinery control and integrated combat management systems for naval surface ships; high-resolution undersea sensors for mine hunting, situational awareness and other applications; unmanned marine vehicles; shipboard missile and encapsulated payload launch systems, propulsion and power generation systems, nuclear reactor instrumentation and control and acoustic sensors for submarines and aircraft carriers; inertial navigation systems for all domains (air, land, sea, and space); embedded Global Positioning Systems; and postal automation systems. Key programs include the AN/SPQ-9B Anti-Ship Missile Defense radar, which provides the US Navy's cruisers and destroyers with situational awareness and contact information from aircraft, cruise missiles, surface vessels and periscope detection; and inertial navigation and positioning products for a range of platforms including ships, aircraft, spacecraft and weapons systems.

In addition to the product and service lines discussed above, our Electronic Systems segment also includes Advanced Concepts & Technologies (AC&T), which develops next-generation systems to position the segment in key developing markets. AC&T focuses on understanding customer mission needs; conceiving affordable, innovative and open solutions; and demonstrating the readiness and effectiveness of Electronic Systems' products. AC&T focuses on the following enterprise-wide and cross cutting technology development thrust areas: RF systems; EO/IR systems; multi-function systems; modular open systems architectural approaches and designs; precision navigation and timing capabilities; and secure and trusted solutions.

INFORMATION SYSTEMS

Information Systems, headquartered in McLean, Virginia, is a leading provider of advanced solutions for the DoD, national intelligence, federal civilian, state, international and commercial customers. Products and services focus on the fields of command and control (C2), communications, cyber, air and missile defense, intelligence processing, civil security, health technology and government support systems. The segment consists of seven business areas: Cyber, C2, Communications, ISR, Integrated Air and Missile Defense (IAMMD), Civil and Health.

Cyber - provides full spectrum solutions that address cyber security threats, cyber mission management and special cyber systems. Cyber offerings span intelligence, defense, federal, state, international and commercial customers, providing dynamic cyber defense and specialized cyber systems and services in support of critical government missions. This business specializes in active defense, malware detection, analytics platforms and large scale cyber solutions for national security applications.

C2 - provides net-enabled C2, battle management, command center integration, combat support systems, mission-enabling solutions and critical infrastructure protection systems. C2 systems support operations, managing assets and forces employed to accomplish national and military missions, and optimizing legacy platforms, sensors and weapons systems. These systems are installed in operational and command centers world-wide and across DoD services, joint commands and the international security community.

Communications - provides the underlying networks, network management, gateway systems and radio frequency devices that support national military C4ISR missions and help make C4ISR more integrated and interoperable. Communications capabilities include gateways and products for aircraft interoperability, multi-function avionics, software defined radios and protected communications.

ISR - delivers systems and services in Signals Intelligence (SIGINT), airborne reconnaissance, geospatial intelligence and data fusion, specializing in the collection, processing, and exploitation of data to achieve a deep

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understanding of the environment. Offerings include intelligence integration, large scale information processing, multi-source intelligence, big data applications and geo-location techniques.

IAMD - provides integration and interoperability of net-enabled battle management, sensors, targeting and surveillance systems, air and missile defense C2, missile warning systems and critical situational awareness for weapons and fire control systems. This business provides solutions for both U.S. and international customers, advanced IAMD integration with land and air assets, and cost effective flexible architectures.

Civil - provides civilian information technology (IT) solutions, civil financial operations, public safety systems, law enforcement and state programs. This business is a provider in global homeland security and public safety, federal law enforcement information sharing and analysis, and IT systems and services that enable civil missions and satisfy infrastructure and back office requirements.

Health - provides healthcare expertise combined with IT capabilities to support effective healthcare services and efficient health and human services systems. Capabilities include benefits management, population health, clinical data integration and health analytics. This business provides system engineering and integration, affordable national healthcare IT, and solutions to meet health and human services challenges.

Key programs for the Information Systems segment include the Joint National Integration Center Research and Development (JRDC) contract, which supports the technical infrastructure, modeling and simulation, test and evaluation, and management of the Missile Defense Agency network at multiple sites; the Battlefield Airborne Communications Node (BACN), a high-altitude, airborne communications and information gateway system that provides situational awareness and C2 coordination between warfighters and commanders; the Communications, Navigation and Identification (CNI) integrated avionics system for the F-35 Joint Strike Fighter based on software-defined technology with advanced capabilities for interoperability; and the Integrated Air and Missile Defense Battle Command System (IBCS), a C2 system that delivers a single, unambiguous view of the battlespace with enhanced aircraft and missile tracking improving the ability of combatant commanders and air defenders to make critical decisions within seconds.

TECHNICAL SERVICES

Technical Services, headquartered in Herndon, Virginia, is a leader in innovative logistics, modernization and sustainment and also provides an array of other advanced technology and engineering services, including space, missile defense, nuclear security, training and simulation. The segment consists of two business areas: Integrated Logistics and Modernization and Mission Solutions and Readiness.

Integrated Logistics and Modernization - provides complete life cycle support and weapon system sustainment and modernization products and services, and provides direct support to warfighters while delivering aircraft and subsystem maintenance, repair and overhaul (MRO). Competencies include aircraft and electronics sustaining engineering, supply chain management services, manned and unmanned weapons systems deployed logistics support, field services and on-going maintenance and technical assistance, and delivering rapid response in support of global customers. Key programs include KC-10 Contractor Logistics Support (CLS), which provides total weapons systems CLS to the Air Force for the entire fleet of 59 KC-10 aircraft; Intercontinental Ballistic Missile (ICBM) Systems, which provides systems engineering and integration for the land-based leg of the U.S. nuclear deterrent force; UK Airborne Warning and Control System (AWACS), which provides through life management of the UK Royal Air Force fleet of E-3D AWACS aircraft; KC-30A Multi-Role Tanker Transport (MRTT), which provides through life support for the Royal Australian Air Force (RAAF) KC-30A air to air refueling aircraft; MQ5B Hunter Contractor Logistics Support (CLS), which provides maintenance and continuous modernization of the Army's fielded Hunter Unmanned Aerial Vehicles (UAV); and AAQ24 LAIRCM, which provides repair, testing, component spare procurement, logistics, and data collection related to directional infrared counter measures systems used on multiple fixed and rotary wing aircraft.

Mission Solutions and Readiness - provides realistic and comprehensive training through live, virtual and constructive domains, innovative and diverse training applications ranging from battle command to professional military education, sustainment and modernization of tactical vehicles, high technology and engineering services in the areas of nuclear security, space and launch services, civil engineering and military range-sensor-instrumentation operations. Key programs include Ministry of the National Guard Training Support (MNG TSC), through our interest in a joint venture for which we consolidate the financial results, which provides equipment fielding, training and maintenance, simulator training and operations, tactical exercise development, logistics and operations support and English language training to the Saudi Arabian National Guard; the Mission Command Training Program (MCTP), the Army's premier leadership and staff training exercise program at the tactical and operational level; and

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Fort Irwin Logistics Services Support, which provides a full range of logistics support services and operates a large-scale maintenance and repair program of both tracked and tactical wheeled vehicles.

SELECTED FINANCIAL DATA AND SEGMENT OPERATING RESULTS

For a more complete understanding of our business, see Selected Financial Data in Part II, Item 6. For a more complete understanding of our segment financial information, see Segment Operating Results in Part II, Item 7 and Note 3 to the consolidated financial statements in Part II, Item 8.

CUSTOMER CONCENTRATION

Our largest customer is the U.S. Government. Sales to the U.S. Government accounted for 83 percent, 84 percent and 86 percent of sales during the years ended December 31, 2015, 2014 and 2013, respectively. For further information on sales by customer category, see Note 1 to the consolidated financial statements in Part II, Item 8. No single program accounted for more than ten percent of total sales during any period presented. See Risk Factors in Part I, Item 1A.

COMPETITIVE CONDITIONS

We compete with many companies in the defense, intelligence and federal markets. BAE Systems, Boeing, Booz Allen Hamilton, Finmeccanica, General Dynamics, Harris, L-3 Communications, Leidos, Lockheed Martin, Raytheon and Thales 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 bid protests (competitor protests of U.S. Government procurement awards) and the number of competitors bidding on program opportunities.

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, become a subcontractor for 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.

SEASONALITY

No material portion of our business is considered to be seasonal.

BACKLOG

At December 31, 2015, total backlog was \$35.9 billion, compared with \$38.2 billion at the end of 2014. For further information, see Backlog in Part II, Item 7.

RESEARCH AND DEVELOPMENT

See Note 1 to the consolidated financial statements in Part II, Item 8.

INTELLECTUAL PROPERTY

We routinely apply for and own a number of U.S. and foreign patents related to the products and services we provide. We also develop and protect intellectual property as trade secrets. In addition to owning a large portfolio of proprietary intellectual property, we license some intellectual property rights to and 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 in Part I, Item 1A.

RAW MATERIALS

We have not experienced significant delays in the supply or availability of raw materials, nor have we experienced a significant price increase for raw materials. See Risk Factors in Part I, Item 1A.

EMPLOYEE RELATIONS

We believe that we maintain good relations with our approximately 65,000 employees. Approximately 2,600 are covered by 12 collective agreements in the U.S., of which we negotiated renewals of four in 2015 and expect to negotiate renewals of five in 2016. See Risk Factors in Part I, Item 1A.

REGULATORY MATTERS

Government Contract Security Restrictions

Certain programs with the U.S. Government that are prohibited by the customer from being publicly discussed are generally referred to as "restricted" in this Annual Report on Form 10-K. The consolidated financial statements and

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financial information in this Annual Report on Form 10-K reflect the operating results of our entire company, including restricted programs, under accounting principles generally accepted in the United States of America (GAAP).

Contracts

We 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 under the requirements of the Federal Acquisition Regulation (FAR) and U.S. Government Cost Accounting Standards (CAS). Examples of costs incurred by us and not billed to the U.S. Government in accordance with the FAR and CAS include, but are not limited to, lobbying costs, certain legal costs, charitable donations, advertising costs, interest expense and unallowable employee compensation and benefits costs.

Our long-term contracts typically fall into one of two broad categories:

Cost-type contracts – Cost-type contracts include cost plus fixed fee, award fee and/or incentive fee contracts. Cost-type contracts provide for reimbursement of the contractor's allowable costs incurred plus fee. Cost-type contracts generally require that the contractor use its best efforts to accomplish the scope of the work within some specified time and some stated dollar limitation. Fees on cost-type contracts can be fixed in terms of dollar value or percentage of costs. Award and incentive fees 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, and are intended to provide motivation for excellence in contract performance. Incentive fees that are based on cost provide for an initially negotiated fee to be adjusted later, typically using a formula to measure performance against the associated criteria, based on the relationship of total allowable costs to total target costs. Award and incentive fees that can reasonably be estimated and are deemed reasonably assured are recorded over the performance period of the contract.

Fixed-price contracts – A firm fixed-price contract is a contract in which the specified scope of work is agreed to for a price that is a pre-determined, negotiated amount and not generally subject to adjustment regardless of costs incurred by the contractor, absent changes in scope by the customer. 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 types of fixed-price incentive fee 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.

See Note 1 to the consolidated financial statements in Part II, Item 8 and Risk Factors in Part I, Item 1A.

The following table summarizes sales for the year ended December 31, 2015, recognized by contract type and customer:

(\$ in millions)	U.S. Government ⁽¹⁾	International and Other Customers ⁽²⁾	Total	Percentage of Total Sales
Cost-type contracts	\$ 11,558	\$ 641	\$ 12,199	52%
Fixed-price contracts	7,900	3,427	11,327	48%
Total sales	\$ 19,458	\$ 4,068	\$ 23,526	100%

⁽¹⁾ Sales to the U.S. Government include sales from contracts for which Northrop Grumman is the prime contractor, as well as those for which the company is a subcontractor and the ultimate customer is the U.S. Government. Each of the company's segments derives substantial revenue from the U.S. Government.

⁽²⁾ Sales to International and Other Customers include foreign military sales contracted through the U.S. Government, direct commercial sales with governments outside the U.S., sales to state and local governments, and sales to commercial customers.

Profit margins may vary materially depending on, among other things, negotiated contract fee arrangements, achievement of performance objectives and the stage of performance at which the right to receive fees, particularly under incentive and award fee contracts, is determined.

We monitor our policies and procedures with respect to our contracts on a regular basis to enhance consistent application under similar terms and conditions, as well as compliance with applicable government regulations and laws. In addition, costs incurred and allocated to contracts with the U.S. Government are routinely audited by the Defense Contract Audit Agency.

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Environmental

Our operations are subject to and affected by federal, state, local and foreign laws and regulations relating to the protection of the environment. In 2010, we established goals for the reduction of greenhouse gas emissions and implementation of best management practices for water use and solid waste; those goals were achieved as of December 31, 2014. In 2015, we announced our 2020 environmental sustainability goals: to reduce absolute greenhouse gas emissions by 30 percent from 2010 levels; to reduce potable water use by 20 percent from 2014 levels; and achieve a 70 percent solid waste diversion rate (from landfills).

We have recorded liabilities and 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 commitments. See Risk Factors in Part I, Item 1A and Notes 1 and 11 to the consolidated financial statements in Part II, Item 8.

EXECUTIVE OFFICERS

See Part III, Item 10, for information about our executive officers.

AVAILABLE INFORMATION

Our 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 on the Internet is 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 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 that contains reports, proxy statements and other information about SEC registrants, including Northrop Grumman Corporation. You may also obtain these materials at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

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 Factors

Our 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 urge 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.

- ***We depend heavily on a single customer, the U.S. Government, for a substantial portion of our business. Changes in this customer's 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 83 percent, 84 percent and 86 percent of our sales during the years ended December 31, 2015, 2014 and 2013, respectively. The U.S. Government has been implementing significant reductions in government spending and other significant program changes. We cannot predict the impact on existing, follow-on, replacement or future programs from potential changes in priorities due to changes in defense spending levels, military strategy and planning and/or changes in social-political priorities.

The U.S. Government generally has the ability to terminate contracts, in whole or in part, without prior notice, for its convenience or for default based on performance. In the event of termination for the U.S. Government's convenience, contractors are generally protected by provisions covering reimbursement for costs incurred on the contracts and profit on those costs up to the amount authorized under the contract, but not the anticipated profit that would have been earned had the contract been completed. Termination by the U.S. Government of a contract due to our default could require us 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 of a contract due to our default could have a material adverse effect on our reputation and our ability to compete for other contracts.

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The U.S. Government also has the ability to stop work under a contract for a limited period of time for its convenience. It is possible that the U.S. Government 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 on the contract to date and for costs associated with the temporary stoppage of work on the contract. However, such temporary stoppages and delays could introduce inefficiencies and result in financial and other damages for which we may not be able to negotiate full recovery from the U.S. Government. They could also ultimately result in termination for convenience or reduced future orders.

A significant shift in government priorities to programs in which we do not participate and/or reductions in funding for or the termination of programs in which we do participate, unless offset by other programs and opportunities, could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***Significant delays or reductions in appropriations for our programs and U.S. Government funding more broadly may 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 on a fiscal year basis even though the program performance period may extend over several years. Consequently, programs are often partially funded initially and additional funds are committed only as Congress makes further appropriations. If we incur costs in excess of funds obligated on a contract, we may be at risk for reimbursement of those costs unless and until additional funds are obligated to the contract. We cannot predict the extent to which total funding and/or funding for individual programs will be included, increased or reduced as part of the annual budget process ultimately approved by Congress or in separate supplemental appropriations or continuing resolutions, as applicable. Laws and plans adopted by the U.S. Government relating to, along with pressures on and uncertainty surrounding the federal budget, sequestration, the appropriations process, use of continuing resolutions (with restrictions, e.g., on new starts) and the permissible federal debt limit, could adversely affect the funding for individual programs and delay purchasing or payment decisions by our customers. In the event government funding for our significant programs becomes unavailable, or is reduced or delayed, our contract or subcontract under such programs may be terminated or adjusted by the U.S. Government or the prime contractor.

On November 2, 2015, the President signed the Bipartisan Budget Act of 2015 (the Budget Act). The Budget Act raises the statutory limit on the amount of permissible federal debt (the debt ceiling) until March 2017 and raises the sequester caps imposed by the Budget Control Act of 2011 (the Budget Control Act) by \$80 billion, split equally between defense and domestic spending, over the next two years (\$50 billion in FY 2016 and \$30 billion in FY 2017). However, unforeseen circumstances could cause an extended debt ceiling breach, which could negatively affect the U.S. Government's timely payment of our billings, resulting in delayed cash collection, and have significant consequences for our company, our employees, our suppliers and the defense industry. On December 18, 2015, Congress passed and the President signed the Consolidated Appropriations Act of 2016, which provides funding for the U.S. government for FY 2016, providing \$1.1 trillion in discretionary funding for federal agencies through September 2016.

The budget environment, including sequestration as currently mandated, and uncertainty surrounding the appropriations processes, remain significant long-term risks. Considerable uncertainty exists regarding how future budget and program decisions will unfold, what challenges budget reductions (required by the Budget Control Act and otherwise) will present for the defense industry and whether an annual appropriations bill will be enacted for FY 2017. If an annual appropriations bill is not enacted for FY 2017 or beyond, the U.S. Government may operate under a continuing resolution, restricting new contract or program starts and we may face a government shutdown of unknown duration. Adverse consequences from operating under a continuing resolution may be greater if the company has a higher percentage of development programs. We believe continued budget pressures will have serious negative consequences for the security of our country, the defense industrial base, including Northrop Grumman, and the customers, employees, suppliers, investors, and communities that rely on companies in the defense industrial base. It is likely budget and program decisions made in this environment will have long-term implications for our company and the entire defense industry.

Long term funding for certain programs in which we participate may be reduced, delayed or cancelled. In addition, budget cuts globally could adversely affect the viability of our subcontractors and suppliers, and our employee base. While we believe that our business is well-positioned in areas that the Department of Defense (DoD) and other customers have indicated are areas of focus for future defense spending, the long-term impact of the Budget Control Act, other defense spending cuts, and the ongoing fiscal debates remain uncertain.

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Significant delays or reductions in appropriations; long term funding under a continuing resolution; an extended debt ceiling breach or government shutdown; and/or future budget and program decisions, among other items, may negatively impact our business and programs and could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***We are subject to various investigations, claims and litigation that could ultimately be resolved against us.***

The size, nature and complexity of our business make us susceptible to investigations, claims, and litigation, particularly those involving governments. We are and may become subject to investigations, claims and administrative, civil or criminal litigation globally and across a broad array of matters, including, but not limited to, government contracts, false claims, products liability, fraud, environmental, intellectual property, tax, export/import, anti-corruption, labor, health and safety, employee benefits and plans, including plan administration, and improper payments. These matters could divert financial and management resources; result in fines, penalties, compensatory, treble or other damages or non-monetary relief; and otherwise disrupt our business. Government regulations also provide that certain allegations against a contractor may lead to suspension or debarment from government contracts or suspension of export privileges for the company or one or more of its components. Suspension or debarment could have a material adverse effect on the company because of our reliance on government contracts and export authorizations. An investigation, claim or litigation, even if fully indemnified or insured, could also negatively impact our reputation among our customers and the public, and make it more difficult for us to compete effectively or obtain adequate insurance in the future. Investigations, claims or litigation could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***Our international business exposes us to additional risks.***

Sales to customers outside the U.S. are an increasingly important component of our strategy. Our international business (including joint ventures) is subject to numerous political and economic factors, legal requirements, cross-cultural considerations and other risks associated with doing business in foreign countries. These risks differ in some respects from those associated with our U.S. business and our exposure to such risks may increase if our international business continues to grow as we anticipate.

Our international business is subject to both U.S. and foreign laws and regulations, including, without limitation, regulations relating to import-export controls, technology transfer restrictions, repatriation of earnings, data privacy and protection, investment, exchange controls, the Foreign Corrupt Practices Act (FCPA) and other anti-corruption laws, the anti-boycott provisions of the U.S. Export Administration Act, labor and employment, works councils and other labor groups, taxes, security restrictions and intellectual property. Failure by us, our employees, or others working on our behalf to comply with these laws and regulations could result in administrative, civil, or criminal liabilities, including suspension or debarment from government contracts or suspension of our export privileges.

Changes in regulations, political leadership and environment, or security risks may dramatically affect our ability to conduct or continue to conduct business in international markets. Our international business may also be impacted by changes in foreign national policies and priorities, government budgets, and economic factors more generally, any of which could impact funding for programs or delay purchasing or payment decisions by customers. Global economic conditions and fluctuations in foreign currency exchange rates could further impact our international business. Our international contracts may also include industrial cooperation agreements requiring specific in-country purchases, investments, manufacturing agreements or other financial obligations, known as offset obligations, and provide for significant penalties if we fail to meet such requirements. Our ability to sell products outside the U.S. could be adversely affected if we are unable to design our products for export on a cost effective basis or to obtain all necessary export licenses and authorizations on a timely basis. Our ability to conduct 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.

The products and services we provide internationally, including those provided by subcontractors and joint ventures in which we have an interest, are sometimes in countries with unstable governments and/or developing legal systems, in areas of military conflict or at military installations. This increases the risk of political dynamics or an incident resulting in harm or loss of life to our employees, subcontractors or other third parties, or in loss of property or damage to our products. It also exposes the company to additional financial, contractual and legal risks. Accidents or incidents that occur in connection with our international operations could also result in negative publicity, which could adversely affect our reputation and make it more difficult for us to compete for future contracts or attract and retain employees or result in the loss of existing and future contracts.

The occurrence and impact of these factors is difficult to predict, but one or more of them could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***Our reputation and our ability to do business may be impacted by the improper conduct of employees, agents, business partners or joint ventures in which we participate.***

We have implemented extensive policies, procedures, training and other compliance controls to prevent misconduct by employees, agents or others working on our behalf or with us that would 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, cost accounting and billing, competition and data privacy. However, we cannot ensure that we will prevent all such misconduct committed by our employees, agents, subcontractors or others working on our behalf or with us, and this risk of improper conduct may increase as we expand globally. In the ordinary course of our business we form and are members of joint ventures. We may be unable to prevent misconduct or other violations of applicable laws by these joint ventures. Improper actions by our employees, agents, subcontractors, business partners or joint ventures could subject us to administrative, civil or criminal investigations and monetary and non-monetary penalties, including suspension and debarment, which could negatively impact our reputation and ability to conduct business and could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***We use estimates when accounting for contracts. Contract cost growth or changes in estimated contract revenues and costs could affect our profitability and our overall financial position.***

Contract accounting requires judgment relative to assessing risks, estimating contract revenues and costs, and making assumptions for schedule and technical issues. Due to the size and nature of many of our contracts, the estimation of total revenues and costs at completion is complicated and subject to many variables. Incentives, awards or penalties related to performance on contracts are considered in estimating revenue and profit rates when there is sufficient information to assess anticipated performance. Suppliers' assertions are also assessed and considered in estimating costs and profitability.

Our operating income can be adversely affected when we experience increased estimated contract costs. Reasons for estimated contract cost growth may include: design issues; changes in estimates of the nature and complexity of the work to be performed, including technical or quality issues or requests to perform additional work at the direction of the customer; production challenges, including those resulting from the availability and timeliness of customer funding, unavailability or reduced productivity of labor or the effect of any delays in performance; the availability, performance, quality or financial strength of significant subcontractors; supplier issues, including the costs, timeliness and availability of materials and components; the effect of any changes in laws or regulations; actions deemed necessary for long-term customer satisfaction; and natural disasters or environmental matters. We may file requests for equitable adjustment or claims to seek recovery in whole or in part for our increased costs.

Our risk varies with the type of contract. Due to their nature, fixed-price contracts inherently tend to have more risk than cost type contracts. In 2015, approximately half of our sales were derived from fixed-price contracts. We typically enter into fixed-price contracts where costs can be more reasonably estimated based on actual experience, such as for mature production programs. In addition, our contracts contain provisions relating to cost controls and audit rights. If the terms specified in our contracts are not met, our profitability may be reduced and we may incur a loss. Our fixed-priced contracts may include fixed-price development work. This type of work is inherently more uncertain as to future events than production contracts, and, as a result, there is typically more variability in estimates of the costs to complete the development stage. As work progresses through the development stage into production, the risks associated with estimating the total costs of the contract are typically reduced. While management uses its best judgment to estimate costs associated with fixed price development contracts, future events could result in either upward or downward adjustments to those estimates. Under cost type contracts, allowable costs incurred by the contractor 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 typically have award or incentive fees that are subject to uncertainty and may be earned over extended periods or towards the end of the contract. In these cases, the associated financial risks are primarily in recognizing profit, which ultimately may not be earned, or program cancellation if cost, schedule, or technical performance issues arise.

Because of the significance of the judgment and estimation processes described above, it is possible that materially different amounts could be obtained if different assumptions were used or if the underlying circumstances were to change. Changes in underlying assumptions, circumstances or estimates, and the failure to prevail on claims for equitable adjustments could have a material adverse effect upon the profitability of one or more of the affected

contracts and on our overall financial position, results of operations and/or cash flows. See Critical Accounting Policies, Estimates and Judgments in Part II, Item 7.

▪ ***Our business could be negatively impacted by cyber and other security threats or disruptions.***

As a defense contractor, we face various cyber and other security threats, including attempts to gain unauthorized access to sensitive information and networks; insider threats; threats to the safety of our directors, officers and employees; threats to the security of our facilities and infrastructure; and threats from terrorist acts or other acts of aggression. Our customers and partners (including subcontractors and joint ventures) face similar threats. Although we utilize various procedures and controls to monitor and mitigate the risk of these threats, there can be no assurance that these procedures and controls will be sufficient. These threats could lead to losses of sensitive information or capabilities, harm to personnel, infrastructure or products, and/or damage to our reputation as well as our partners' ability to perform on our contracts.

Cyber threats are evolving and include, but are not limited to, malicious software, destructive malware, attempts to gain unauthorized access to data, disruption or denial of service attacks, and other electronic security breaches that could lead to disruptions in mission critical systems, unauthorized release of confidential, personal or otherwise protected information (ours or that of our employees, customers or partners), and corruption of data, networks or systems. In addition, we could be impacted by cyber threats or other disruptions or vulnerabilities found in products we use or in our partners' or customers' systems that are used in connection with our business. These events, if not prevented or effectively mitigated, could damage our reputation, require remedial actions and lead to loss of business, regulatory actions, potential liability and other financial losses.

We provide systems, products and services to various customers (government and commercial) who also face cyber threats. Our systems, products and services may themselves be subject to cyber threats and/or they 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.

The impact of these factors is difficult to predict, but one or more of them could result in the loss of information or capabilities, harm to individuals or property, damage to our reputation, loss of business, regulatory actions and potential liability, any one of which could have a material adverse effect on our financial position, results of operations and/or cash flows.

▪ ***Pension and medical liabilities and related expenses in our financial statements that have been recorded in connection with our retirement benefit plans may fluctuate significantly depending upon future investment performance of plan assets, changes in actuarial assumptions, and legislative or other regulatory actions.***

A substantial portion of our current and retired employee population is covered by pension and other post-retirement benefit plans. Pension and medical liabilities and related expenses in our financial statements that have been recorded in connection with these plans are primarily dependent upon future investment performance of plan assets and various assumptions, including discount rates applied to future payment obligations, mortality assumptions, estimated long term rates of return on plan assets, rates of future cost growth and trends for future costs. In addition, funding requirements for benefit obligations of our pension and other post-retirement benefit plans are subject to legislative and other government regulatory actions.

In accordance with government regulations, pension plan cost recoveries under our U.S. Government contracts occur in different periods from when those pension costs are recognized for financial statement purposes or when pension funding is made. These timing differences could have a material adverse effect on our cash flows. The cost accounting rules have been revised in order to partially harmonize the measurement and period of assignment of defined benefit pension plan costs allocable to U.S. Government contracts and the minimum required contribution under the Employee Retirement Income Security Act of 1974 (ERISA), as amended by the Pension Protection Act (PPA) of 2006. These rules better align, but do not eliminate, mismatches between ERISA funding requirements and CAS pension costs for U.S. Government CAS covered contracts.

Future investment performance of plan assets and changes in assumptions associated with our pension and other post-retirement benefit plans could have a material adverse effect on our financial position, results of operations and/or cash flows.

▪ ***Our earnings and profitability depend, in part, on subcontractor performance and financial viability as well as raw material and component availability and pricing.***

We rely on other companies to provide raw materials and major components and subsystems for our products and to produce hardware elements and sub-assemblies, provide intellectual property, and perform some of the services we

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provide to our customers, and to do so in compliance with all applicable laws and regulations. Disruptions or performance problems caused by our subcontractors and suppliers, or a misalignment between our contractual obligations to our customers and our agreement with our subcontractors and suppliers, could have an adverse effect on our ability to meet our commitments to customers.

Our ability to perform our obligations on time could be adversely affected if one or more of our subcontractors or suppliers were unable to provide the agreed-upon products or materials or perform the agreed-upon services in a timely, compliant and cost-effective manner or otherwise to meet the requirements of the contract. Changes in economic conditions, including changes in defense budgets or credit availability, could adversely affect the financial stability of our subcontractors and suppliers and/or their ability to perform. The inability of our suppliers to perform could also result in the need for us to transition to alternate suppliers, which could result in significant incremental cost and delay or the need for us to provide other supplemental means to support our existing suppliers.

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. In some cases, there may be only one supplier for certain components. If a sole source supplier cannot meet our needs or is otherwise unavailable, we may be unable to find a suitable alternative.

Our procurement practices are intended to reduce the likelihood of our procurement of counterfeit, unauthorized or otherwise non-compliant parts or materials. We rely on our subcontractors and suppliers to comply with applicable laws and regulations regarding the parts or materials we procure from them; in some circumstances, we rely on certifications provided by our subcontractors and suppliers regarding their compliance.

If we are unable to procure or experience significant delays in supplier deliveries of needed materials, components, intellectual property or parts; if our subcontractors or suppliers do not comply with all applicable laws and regulations; if the certifications we receive from them are inaccurate; or if what we receive is counterfeit or otherwise improper, it could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***Competition within our markets and an increase in bid protests may affect our ability to win new contracts and result in reduced revenues and market share.***

We operate in highly competitive markets and our competitors may have more extensive or specialized engineering, manufacturing, or marketing capabilities in some areas or financial capacity, or 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 budget reductions for many customers, a continued focus on affordability and competition, and our own success in winning business. We are facing increasing competition in our U.S. and international markets from U.S., foreign and multinational firms. Additionally, some customers, including the DoD, may turn to commercial contractors, rather than traditional defense contractors, for some products and services, or may utilize small business contractors or determine to source work internally rather than hiring a contractor.

We also are seeing an increasing number of bid protests from unsuccessful bidders on new program awards. Bid protests could result in contract modifications or the award decision being reversed and loss of the contract award. Even where a bid protest does not result in the loss of an award, the resolution can extend the time until the contract activity can begin, and delay earnings.

If we are unable to continue to compete successfully against our current or future competitors, or prevail in protests, we may experience declines in future revenues and market share, which could, over time, have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***As a U.S. Government contractor, we and our partners are subject to various procurement and other laws and regulations applicable to our industry and we could be adversely affected by changes in such laws and regulations or any negative findings by the U.S. Government as to our compliance with them. We also may be adversely affected by changes in our customers' business practices globally.***

U.S. Government contractors (including their subcontractors and others with whom they do business) must comply with many significant procurement regulations and other specific legal requirements. These regulations and other requirements, although customary in government contracts, increase our performance and compliance costs and risks and are regularly evolving. New laws, regulations or procurement requirements or changes to current ones (including, for example, regulations related to limits on recovery of employee compensation costs, counterfeit parts, specialty metals and conflict minerals) can significantly increase our costs and risks and reduce our profitability.

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We operate in a highly regulated environment and are routinely audited and reviewed by the U.S. Government and its agencies, such as the Defense Contract Audit Agency (DCAA), Defense Contract Management Agency (DCMA) and the DoD Inspector General. These agencies review performance under our contracts, our cost structure and our compliance with applicable laws, regulations and standards, as well as the adequacy of our systems and processes in meeting government requirements. Costs ultimately found to be unallowable or improperly allocated to a specific contract will not be reimbursed or must be refunded if already reimbursed. If an audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties, sanctions, forfeiture of profits 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 subject to its review to be inadequate, with significant financial impact. In addition, we could suffer serious reputational harm if allegations of impropriety were made against us.

Our industry has experienced, and we expect it will continue to experience, significant changes to business practices globally as a result of an increased focus on affordability, efficiencies, recovery of costs and a reprioritization of available defense funds to key areas for future defense spending. As a result of certain of these initiatives, we have experienced and may continue to experience an increased number of audits and/or a lengthened period of time required to close open audits. More recently, the thresholds for certain allowable costs in the U.S., including compensation costs, have been significantly reduced; the allowability of other types of costs are being challenged, debated and, in certain cases, modified, all with potentially significant financial costs to the company. In connection with these cost reduction initiatives, the U.S. Government is also pursuing alternatives to shift additional responsibility and performance risks to the contractor.

We (again, 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 laws, including but not limited to the Truth in Negotiations Act, the False Claims Act, the Procurement Integrity Act, CAS, FAR, the International Traffic in Arms Regulations promulgated under the Arms Export Control Act, the Close the Contractor Fraud Loophole Act and the FCPA. If we are found to have violated the law, or are found not to have acted responsibly as defined by the law, we may be subject to reductions of the value of contracts; contract modifications or termination; the withholding of payments from our customer; the loss of export privileges; the assessment of penalties, fines, or compensatory, treble or other damages; or suspension or debarment.

If we do not comply with the laws, regulations and processes to which we are subject or if customer business practices change significantly, including with respect to the thresholds for allowable costs, it could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***Our business is subject to disruption caused by natural and/or environmental disasters that could adversely affect our profitability and our overall financial position.***

We have significant operations located in regions that may be exposed to earthquakes, damaging storms and other natural disasters. Our business also may be subject to environmental disasters. Our subcontractors and suppliers are also subject to natural and environmental disasters that could affect their ability to deliver or perform under a contract. Although preventative measures may help to mitigate damage, the damage and disruption resulting from natural and environmental disasters may be significant.

Natural and environmental disasters could also disrupt our and our subcontractors' and suppliers' workforce and the critical industrial infrastructure needed for normal business operations.

If insurance or other risk transfer mechanisms are unavailable or insufficient to recover all costs or if we experience a significant disruption to our business due to a natural or environmental disaster, it could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***Our insurance coverage, customer indemnifications or other liability protections may be inadequate to cover all of our significant risks or our insurers may deny coverage or be unable to pay for material losses we incur, which could adversely affect our profitability and overall financial position.***

We endeavor to obtain insurance agreements from financially solid, highly rated counterparties in established markets to cover significant risks and liabilities (including, for example, natural disasters and product liability). Not every risk or liability can be insured, and, for risks that are insurable, the policy limits and terms of coverage reasonably obtainable in the market may not be sufficient to cover all actual losses or liabilities incurred. Even if insurance coverage is available, we may not be able to obtain it at a price or on terms acceptable to us. Disputes with insurance carriers over policy terms or the insolvency of one or more of our insurers may significantly affect the amount or timing of cash flows and, if litigation over coverage terms with the insurer becomes necessary, an outcome unfavorable to us may adversely affect us.

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In some circumstances we may be entitled to certain legal protections or indemnifications from our customers through contractual provisions, laws, regulations or otherwise. However, these protections are not always available, are typically subject to certain terms or limitations and may not be sufficient to cover all losses or liabilities incurred.

If available insurance coverage, customer indemnifications and/or other legal protections are not sufficient to cover our risks or losses, it could have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***We provide products and services related to hazardous and high risk operations, which subjects us to various environmental, regulatory, financial, reputational and other risks.***

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 in support of nuclear-related operations of third parties. This subjects us to various extraordinary risks, including potential liabilities relating to nuclear-related incidents and the harmful effects on the environment and human health that may result from such nuclear-related activities, operations or incidents, as well as the storage, handling and disposal of radioactive materials. We may be subject to reputational harm and potential liabilities arising out of a nuclear incident, whether or not the cause was within our control. Under some circumstances, the U.S. Government and prime contractors provide for certain indemnification and other protection under certain of our government related contracts, including pursuant to, or in connection with, Public Law 85-804, the Price-Anderson Nuclear Industries Indemnity Act and the Terrorism Risk Insurance Reauthorization Act, for certain nuclear-related risks.

In addition, our customers may otherwise use our products and services in connection with hazardous activities, or in ways that can be unusually hazardous or risky, creating potential liabilities to our customers and/or our company as the provider of such products and services. In the event of an incident, if our customers fail to use our products properly or if our products or services do not operate as intended, we could be subject to reputational harm and potential liabilities.

If there was a nuclear incident or other nuclear-related damages, or incident or other damages related to or caused by the hazardous use of our products and services, and if indemnification or other protection was not available to cover our losses and liabilities, it could adversely affect our reputation and have a material adverse effect on our financial position, results of operations and/or cash flows.

- ***Changes in future business conditions could cause business investments and/or recorded goodwill and other long-lived assets to become impaired, resulting in substantial losses and write-downs that would reduce our operating income.***

Goodwill accounts for approximately half of our total assets. Market-based inputs to the calculations in our goodwill impairment test, such as weighted average cost of capital and terminal value (based on market comparisons) could change significantly from our current assumptions. Additionally, the carrying values of our reporting units are significantly influenced by a number of factors, particularly the discount rate used to determine our net pension liability. We continue to monitor the recoverability of the carrying value of our goodwill and other long-lived assets. Significant write-offs of goodwill or other long-lived assets could have a material adverse effect on our financial condition and/or results of operations.

- ***Our future success depends, in part, on our ability to develop new products and new technologies and maintain technologies, facilities, equipment and a qualified workforce to win new competitions and meet the needs of our customers.***

Many of the markets in which we operate are characterized by rapidly changing technologies. The product, program and service needs of our customers change and evolve regularly. Our success in the competitive defense industry depends upon our ability to develop technologically advanced, innovative and cost-effective products and services and market these products and services to our customers in the U.S. and internationally. Our success depends on our continued access to assured suppliers of important technologies and components. Our success also depends on our ability to provide the people, technologies, facilities, equipment and financial capacity needed to deliver those products and services with maximum efficiency. If we fail to maintain our competitive position, we could lose a significant amount of future business to our competitors, which would negatively impact our ability to generate favorable financial results and maintain market share.

Our operating results are heavily dependent upon our ability to attract and retain sufficient personnel with requisite skills and/or security clearances, globally. If qualified personnel become scarce or difficult to attract or retain or if we experience a high level of attrition for geographic, compensation-related or other reasons, or if such personnel

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are unable to obtain security clearances on a timely basis, we could experience higher labor, recruiting or training costs in order to attract and retain necessary employees. Failure to maintain a qualified workforce would result in significant difficulty in performing under our contracts.

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. If we experience difficulties with renewals and renegotiations of existing collective agreements or if our employees pursue new collective representation, we could incur additional expenses and may be subject to work stoppages. Any such expenses or delays could adversely affect our programs served by employees who are covered by such agreements or representation.

If we are unable to develop new products and technologies or attract and retain a qualified workforce, we may be unable to maintain our competitive position and our future success could be adversely affected.

- ***Many of our contracts contain performance obligations that require innovative design capabilities, are technologically complex, require state-of-the-art manufacturing expertise or are dependent upon factors not wholly within our control. Failure to meet these obligations could adversely affect our profitability and future prospects.***

We design, develop and manufacture technologically advanced and innovative products and services, which are applied by our customers in a variety of environments. Problems and delays in development or delivery, or system failures, as a result of issues with respect to design, technology, intellectual property rights, labor, inability to achieve learning curve assumptions, inability to manage effectively a broad array of programs, manufacturing materials or components could prevent us from meeting requirements and create significant risk.

In addition, our products cannot be tested and proven in all situations and are otherwise subject to unforeseen problems. Examples of unforeseen problems that could negatively affect revenue and profitability include loss on launch of spacecraft, loss of aviation platforms, premature failure of products that cannot be accessed for repair or replacement, problems with design, quality and workmanship, country of origin of procured materials, delivery of subcontractor components or services and degradation of product performance. These failures could result, either directly or indirectly, in loss of life or property. Among the factors that may affect revenue and profitability could be inaccurate cost estimates, design issues, human factors, unforeseen costs and expenses not covered by insurance or indemnification from the customer, diversion of management focus in responding to unforeseen problems, loss of follow-on work, and, in the case of certain contracts, repayment to the government customer of contract cost and fee payments we previously received.

Certain contracts, primarily involving space satellite systems, contain provisions that entitle the customer to recover fees in the event of failure of the system upon launch or subsequent deployment for less than a specified period of time. Under such terms, we could be required to forfeit fees previously recognized and/or collected.

If we are unable to meet our performance obligations due to issues regarding the design, development or manufacture of our products or services, or we experience launch, platform or satellite system failures, it could have an adverse impact on our current and future business.

- ***Unforeseen environmental costs could have an adverse effect on 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. In addition, we could be affected by future laws or regulations, including those imposed in response to climate change concerns and other actions. Compliance with current and future environmental laws and regulations currently requires, and is expected to continue to require, significant operating and capital costs. We may be required to incur additional costs in excess of those anticipated as a result of, among other things, new laws and regulations, stricter enforcement of existing laws and regulations, imposition of new cleanup requirements, discovery of previously unknown or more extensive contamination, litigation involving environmental impacts or sanctions or penalties or a determination that certain environmental costs are unallowable. In addition, if other identified responsible parties are insolvent or otherwise unable to pay their share of such costs, we may be required to incur additional costs in excess of those anticipated.

Environmental laws and regulations provide for substantial fines and criminal sanctions for violations. These laws and regulations may limit our operations or require the installation of costly pollution control equipment or operational changes to limit pollution emissions or discharges and/or decrease the likelihood of accidental hazardous substance releases. We also incur, and expect to continue to incur, costs to comply with current environmental laws and regulations related to the cleanup of pollutants previously released into the environment. In addition, if we were

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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 maintained by the General Services Administration of facilities that generally cannot be used in performing on U.S. Government contracts until the violation is corrected.

The impact of these factors is difficult to predict, but one or more of them could have an adverse effect on our financial position, results of operations and/or cash flows.

- ***We may be unable adequately to protect our intellectual property rights, which could affect our ability to compete.***

We own many U.S. and foreign patents, trademarks, copyrights, and other forms of intellectual property, and we license certain intellectual property rights to and from third parties. The U.S. Government generally holds licenses to certain intellectual property that we develop in performance of government contracts, and it may use or authorize others to use certain such intellectual property, typically for government purposes. More recently, we believe the U.S. Government has asserted or sought to obtain more extensive rights in intellectual property. The U.S. Government's efforts could result in a decrease in our ability to control the use of certain of our intellectual property rights in a government contracting environment. Our intellectual property is also subject to challenge, invalidation, misappropriation or circumvention by third parties.

We also rely significantly upon proprietary technology, information, processes and know-how that are not protected by patents. We seek to protect this information through trade secret or confidentiality agreements with our employees, consultants, subcontractors and other parties, as well as through other measures. These agreements and other measures may not provide adequate protection for our unpatented proprietary information. In the event of an infringement of our intellectual property rights, a breach of a confidentiality agreement or divulgence of proprietary information, we may not have adequate legal remedies to maintain our intellectual property. Litigation to determine the scope of intellectual property rights, even if ultimately successful, could be costly and could divert management's attention away from other aspects of our business. In addition, our trade secrets may otherwise become known or be independently developed by competitors. In some instances, we have licensed the proprietary intellectual property of others, but we may be unable in the future to secure the necessary licenses to use such intellectual property on commercially reasonable terms. Moreover, the laws concerning intellectual property rights vary among countries and the protection provided to our intellectual property by these laws and foreign courts may not be the same as the remedies available under U.S. law.

If we are unable adequately to control or protect our intellectual property rights against claims by our customers or others, or otherwise procure necessary intellectual property, it could have an adverse effect on our financial position, results of operations and/or cash flows.

- ***Unanticipated changes in our tax provisions or exposure to additional tax liabilities could affect our profitability and cash flow.***

We are subject to income and other taxes in the U.S. and foreign jurisdictions. Changes in applicable U.S. or foreign tax laws and regulations, or their interpretation and application, including the possibility of retroactive effect, could affect our tax expense and profitability. For example, a change in the U.S. corporate tax rate would result in a remeasurement of our net deferred tax assets through the income tax provision because our deferred tax assets are measured at the current statutory tax rate. In addition, the final determination of any tax audits or related litigation could be materially different from our historical income tax provisions and accruals. Changes in our tax provision or an increase in our tax liabilities, whether due to changes in applicable law and regulations, the interpretation or application thereof, changes in the tax rate or a final determination of tax audits or litigation, could have an adverse effect on our financial position, results of operations and/or cash flows.

- ***The spin-off of our former Shipbuilding business may expose us to claims, liabilities and reputational harm.***

In connection with the spin-off transaction, we entered into a number of agreements with HII setting forth certain rights and obligations of the parties after the separation. For example, under the Separation and Distribution Agreement, from and after the spin-off transaction, each of HII and Northrop Grumman is generally responsible for the debts, liabilities and other obligations related to the business or businesses that it owns and operates following the consummation of the spin-off. It is possible that a court would disregard the allocation agreed to between us and HII, and require that we assume responsibility for certain obligations allocated to HII (for example, tax and/or environmental liabilities), particularly if HII were to refuse or were unable to pay or perform such obligations.

In addition, third parties could seek to hold us responsible for any of the liabilities or obligations for which HII has agreed to be responsible and/or to indemnify us, directly or indirectly. The indemnity related rights we have under our agreements with HII may not be sufficient to protect us against such liabilities. Even if we ultimately succeed in

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recovering from HII or the U.S. Government any amounts for which we are held liable, we may be required to record these losses ourselves until such time as the indemnity contribution is paid. In addition, certain indemnities that we may be required to provide HII are not subject to a cap, may be significant, and could negatively impact our business.

In connection with the spin-off transaction, we received a letter ruling from the IRS and an opinion of counsel confirming that we and our shareholders would not recognize any taxable income, gain or loss for U.S. federal income tax purposes as a result of the merger, the internal reorganization or the distribution, except that our shareholders who received cash in lieu of fractional shares would recognize gain or loss with respect to such cash. Nevertheless, if the merger, the internal reorganization or the distribution were ultimately determined to be taxable for U.S. federal income tax purposes, we and our shareholders could be subject to additional income tax liabilities.

The impact of these factors is difficult to predict, but one or more of them could cause reputational harm and could have an adverse effect on our financial position, results of operations and/or cash flows.

Item 1B. Unresolved Staff Comments

None.

FORWARD-LOOKING STATEMENTS AND PROJECTIONS

This Annual Report on Form 10-K and the information we are incorporating by reference contain statements, other than statements of historical fact, that constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “expect,” “intend,” “may,” “could,” “plan,” “project,” “forecast,” “believe,” “estimate,” “outlook,” “anticipate,” “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 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 under Risk Factors in Part I, Item 1A and other important factors disclosed in this report and from time to time in our other filings with the SEC.

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, 2015, we had approximately 34 million square feet of floor space at 467 separate locations, primarily in the U.S., for manufacturing, warehousing, research and testing, administration and various other uses. At December 31, 2015, we leased to third parties approximately 250,000 square feet of our owned and leased facilities, and had vacant floor space of approximately 1 million square feet.

At December 31, 2015, we had major operations at the following locations:

Aerospace Systems

Carson, El Segundo, Manhattan Beach, Mojave, Palmdale, Redondo Beach and San Diego, CA; Melbourne and St. Augustine, FL; Devens, MA; Moss Point, MS; and Bethpage, NY.

Electronic Systems

Azusa, Sunnyvale and Woodland Hills, CA; Apopka, FL; Rolling Meadows, IL; Annapolis, Elkridge, Halethorpe, Linthicum and Sykesville, MD; Williamsville, NY; Cincinnati, OH; Salt Lake City, UT; and Charlottesville, VA. Locations outside the U.S. include France, Germany and Italy.

Information Systems

Huntsville, AL; McClellan, Redondo Beach, San Diego and San Jose, CA; Aurora and Colorado Springs, CO; Annapolis Junction, MD; Bellevue, NE; Beavercreek, OH; and Chantilly, Chester, Fairfax, Herndon, McLean and Richmond, VA.

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Technical Services

Sierra Vista, AZ; Wamer Robins, GA; Lake Charles, LA; and Herndon, VA.

Corporate

Falls Church and Lebanon, VA and Irving, TX.

The following is a summary of our floor space at December 31, 2015:

<i>Square feet (in thousands)</i>	Owned	Leased	U.S. Government Owned/Leased	Total
Aerospace Systems	6,591	5,961	1,930	14,482
Electronic Systems	8,172	2,316	—	10,488
Information Systems	658	5,646	—	6,304
Technical Services	142	1,823	1	1,966
Corporate	657	495	—	1,152
Total	16,220	16,241	1,931	34,392

We maintain our properties in good operating condition and believe that the productive capacity of our properties is adequate to meet current contractual requirements and those for the foreseeable future.

Item 3. Legal Proceedings

We have provided information about certain legal proceedings in which we are involved in Note 10 to the consolidated financial statements in Part II, Item 8.

We are a party to various investigations, lawsuits, claims 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 fines; penalties; compensatory, treble or other damages; or non-monetary relief. Government regulations also 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. Suspension or debarment could have a material adverse effect on the company because of our reliance on government contracts and authorizations. The nature of legal proceedings is such that we cannot assure the outcome of any particular matter. However, based on information available to us to date and other than as noted in Note 10 to the consolidated financial statements, we do not believe that the outcome of any matter currently pending against the company is likely to have a material adverse effect on the company's consolidated financial position as of December 31, 2015, its annual results of operations and/or cash flows. For further information on the risks we face from existing and future investigations, lawsuits, claims and other legal proceedings, please see Risk Factors in Part I, Item 1A.

Item 4. Mine Safety Disclosures

No information is required in response to this item.

PART 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 181,303,083 shares and 198,930,240 shares were outstanding as of December 31, 2015 and 2014, 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, 2015 and 2014.

MARKET INFORMATION

Our common stock is listed on the New York Stock Exchange and trades under the symbol NOC.

The following table sets forth, for the periods indicated, the intraday high and low prices of our common stock as reported in the consolidated reporting system for the New York Stock Exchange Composite Transactions.

	2015	2014
January to March	\$141.58 to \$172.30	\$109.17 to \$125.37
April to June	152.44 to 166.55	116.11 to 126.00
July to September	152.31 to 176.83	118.23 to 134.24
October to December	168.26 to 193.99	118.24 to 153.19

HOLDERS

The approximate number of common stockholders was 25,444 as of January 28, 2016.

DIVIDENDS

Quarterly dividends per common share for the most recent two years are as follows:

	2015	2014
January to March	\$ 0.70	\$ 0.61
April to June	0.80	0.70
July to September	0.80	0.70
October to December	0.80	0.70
Total	\$ 3.10	\$ 2.71

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PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

The table below summarizes our repurchases of common stock during the three months ended December 31, 2015:

Period	Total Number of Shares Purchased	Average Price Paid per Share⁽¹⁾	Total 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)
October 3, 2015 - October 30, 2015	647,990	\$ 175.95	647,990	\$ 4,444
October 31, 2015 - November 27, 2015	420,316	185.48	420,316	4,366
November 28, 2015 - December 31, 2015	486,407	187.96	486,407	4,274
Total	1,554,713	\$ 182.28	1,554,713	\$ 4,274

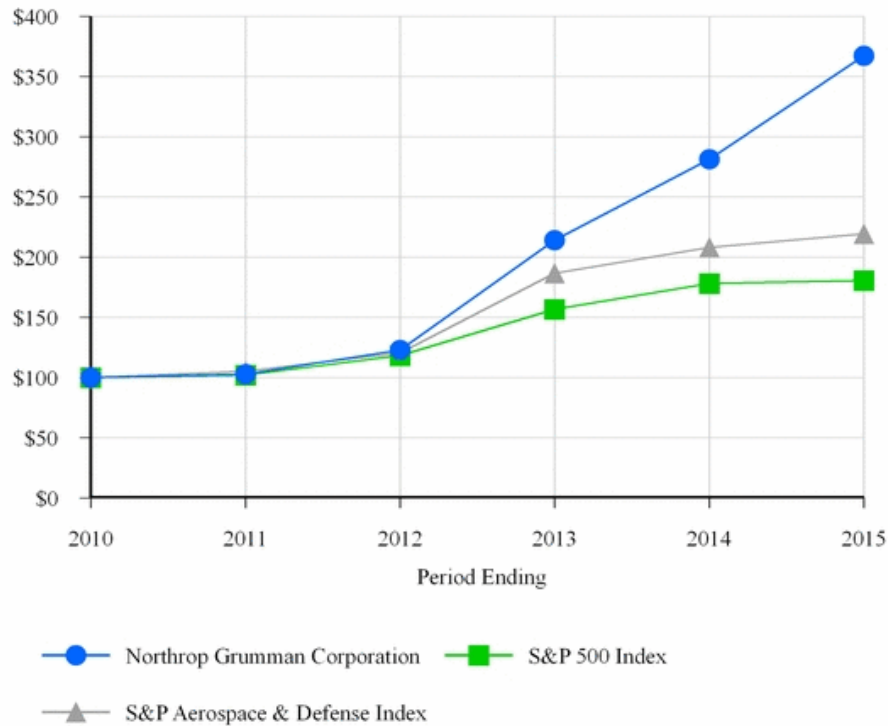
⁽¹⁾ Includes commissions paid.

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

See Note 2 to the consolidated financial statements in Part II, Item 8 for further information on our share repurchase programs.

STOCK PERFORMANCE GRAPH

Comparison of Cumulative Five Year Total Return
 Among Northrop Grumman Corporation, the S&P 500 Index,
 and the S&P Aerospace & Defense Index



- (1) Assumes \$100 invested at the close of business on December 31, 2010, in Northrop Grumman Corporation common stock, Standard & Poor's (S&P) 500 Index and the S&P Aerospace & Defense Index.
- (2) The cumulative total return assumes reinvestment of dividends. In March 2011, we completed the spin-off of Huntington Ingalls Industries, Inc. (HII). Our shareholders received one share of HII common stock for every six shares of our common stock held on the record date. The effect of the spin-off is reflected in the cumulative total return as a reinvested dividend.
- (3) The S&P Aerospace & Defense Index is comprised of The Boeing Company, General Dynamics Corporation, Honeywell International Inc., L-3 Communications, Lockheed Martin Corporation, Northrop Grumman Corporation, Precision Castparts Corporation, Raytheon Company, Rockwell Collins, Inc., Textron, Inc. and United Technologies Corporation.
- (4) The total return is weighted according to market capitalization of each company at the beginning of each year.
- (5) This graph is not deemed to be filed with the U.S. Securities and Exchange Commission (SEC) or subject to the liabilities of Section 18 of the Securities and 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. Selected Financial Data

The data presented in the following table is derived from the audited consolidated financial statements and other information. 2011 data is adjusted to reflect the effects of discontinued operations.

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SELECTED FINANCIAL DATA

<i>\$ in millions, except per share amounts</i>	Year Ended December 31				
	2015	2014	2013	2012	2011
Sales					
U.S. Government ⁽¹⁾	\$ 19,458	\$ 20,085	\$ 21,278	\$ 22,268	\$ 23,432
International ⁽²⁾	3,339	3,045	2,493	2,085	2,076
Other Customers ⁽³⁾	729	849	890	865	904
Total sales	23,526	23,979	24,661	25,218	26,412
Operating income	3,076	3,196	3,123	3,130	3,276
Earnings from continuing operations	1,990	2,069	1,952	1,978	2,086
Basic earnings per share, from continuing operations	\$ 10.51	\$ 9.91	\$ 8.50	\$ 7.96	\$ 7.54
Diluted earnings per share, from continuing operations	10.39	9.75	8.35	7.81	7.41
Cash dividends declared per common share	3.10	2.71	2.38	2.15	1.97
Year-End Financial Position					
Total assets	\$ 24,454	\$ 26,572	\$ 26,381	\$ 26,543	\$ 25,411
Notes payable to banks and long-term debt	6,526	5,928	5,930	3,935	3,948
Other long-term obligations ⁽⁴⁾	7,059	7,520	4,018	7,043	5,005
Financial Metrics					
Net cash provided by continuing operations	\$ 2,162	\$ 2,593	\$ 2,483	\$ 2,640	\$ 2,347
Free cash flow from continuing operations ⁽⁵⁾	1,691	2,032	2,119	2,309	1,855
Other Information					
Company-sponsored research and development expenses	\$ 712	\$ 569	\$ 507	\$ 520	\$ 543
Total backlog	35,923	38,199	37,033	40,809	39,515
Square footage at year-end (in thousands)	34,392	34,264	34,500	35,053	37,397
Number of employees at year-end	65,000	64,300	65,300	68,100	72,500

⁽¹⁾ Sales to the U.S. Government include sales from contracts for which Northrop Grumman is the prime contractor, as well as those for which the company is a subcontractor and the ultimate customer is the U.S. Government. Each of the company's segments derives substantial revenue from the U.S. Government.

⁽²⁾ International sales include foreign military sales contracted through the U.S. Government, direct commercial sales with governments outside the U.S. and commercial sales outside the U.S.

⁽³⁾ Sales to Other Customers include sales to U.S. state and local governments and U.S. commercial customers.

⁽⁴⁾ Other long-term obligations include pension and other post-retirement benefit plan liabilities, deferred compensation, unrecognized tax benefits, environmental liabilities and other long-term obligations.

⁽⁵⁾ Free cash flow from continuing operations is a non-GAAP financial measure and is calculated as cash provided by continuing operations less capital expenditures. See Liquidity and Capital Resources – Free Cash Flow in Part II, Item 7 for more information on this measure.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

OVERVIEW

U.S. Political and Economic Environment

The U.S. Government continues to face substantial fiscal and economic challenges, which affect funding for its discretionary and non-discretionary budgets. Part I of the Budget Control Act of 2011 (Budget Control Act) provided for a reduction in planned defense budgets by at least \$487 billion over a ten year period. Part II mandated substantial additional reductions, through a process known as "sequestration," which took effect in March 2013.

In December 2013, Congress passed the National Defense Authorization Act (NDAA). Congress also passed, and the President signed into law, the Bipartisan Budget Act of 2013, which set discretionary spending levels for fiscal year (FY) 2014 and FY 2015. The legislation provided for additional budget funding of approximately \$63 billion over FY 2014 and FY 2015. The additional funding alleviated some budget cuts that would otherwise have been instituted through sequestration in FY 2014 and FY 2015.

In December 2014, Congress passed and the President signed into law the Consolidated and Further Appropriations Act of 2015, providing for federal spending levels for FY 2015 consistent with the Bipartisan Budget Act of 2013.

On November 2, 2015, the President signed into law the Bipartisan Budget Act of 2015 (the Budget Act). The Budget Act raises the debt ceiling until March 2017 and raises the sequester caps imposed by the Budget Control Act by \$80 billion, split equally between defense and non-defense spending, over the next two years (\$50 billion in FY 2016 and \$30 billion in FY 2017).

On December 18, 2015, Congress passed and the President signed the Consolidated Appropriations Act of 2016, which provides funding for the U.S. Government for FY 2016, providing \$1.1 trillion in discretionary funding for federal agencies through September 2016. The FY 2016 DoD budget approved by Congress is approximately \$581 billion (including \$58 billion for Overseas Contingency Operations (OCO)), which represents an approximately four percent increase relative to the DoD funding for FY 2015.

The federal budget continues to be the subject of considerable debate, which could have a significant impact on defense spending broadly and the company's programs in particular.

For further information on the risks we face from the current political and economic environment, see Risk Factors in Part I, Item 1A.

Operating Performance Assessment and Reporting

We manage and assess our business based on our performance on contracts and programs (typically two or more closely-related contracts). We recognize sales from our portfolio of long-term contracts primarily using the cost-to-cost method of percentage of completion accounting, but in some cases we utilize the units-of-delivery method of percentage of completion accounting. As a result, sales tend to fluctuate in concert with costs incurred across our large portfolio of contracts. Due to Federal Acquisition Regulation (FAR) rules that govern our U.S. Government business and related Cost Accounting Standards (CAS), 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 costs, subcontractor costs, material costs, overhead costs and general and administrative 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 look primarily at changes in sales and operating income, including the effects of meaningful changes in operating income as a result of changes in contract estimates. 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 below of results of operations first focuses on our four segments before distinguishing between products and services. Changes in sales are generally described in terms of volume, deliveries or other indicators of sales activity, and contract mix. For purposes of this discussion, volume generally refers to increases or decreases in sales or cost from production/service activity levels or delivery rates. Performance generally refers to changes in estimates-at-completion (EACs) for contract operating margin rates during the period (net EAC adjustments), as well as the continuing effect of prior net EAC adjustments.

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CONSOLIDATED OPERATING RESULTS

Selected financial highlights are presented in the table below:

<i>\$ in millions, except per share amounts</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Sales	\$ 23,526	\$ 23,979	\$ 24,661	(2)%	(3)%
Operating costs and expenses	20,450	20,783	21,538	(2)%	(4)%
Operating income	3,076	3,196	3,123	(4)%	2 %
<i>Operating margin rate</i>	13.1%	13.3%	12.7%		
Federal and foreign income tax expense	800	868	911	(8)%	(5)%
<i>Effective income tax rate</i>	28.7%	29.6%	31.8%		
Net earnings	1,990	2,069	1,952	(4)%	6 %
Diluted earnings per share	10.39	9.75	8.35	7 %	17 %
Net cash provided by operating activities	\$ 2,162	\$ 2,593	\$ 2,483	(17)%	4 %

Sales

2015 – Sales decreased \$453 million, or 2 percent, as compared with 2014, primarily due to lower sales on U.S. Government contracts at Aerospace Systems and Information Systems, partially offset by an increase in international sales at Aerospace Systems.

2014 – Sales decreased \$682 million, or 3 percent, as compared with 2013, primarily due to lower sales on U.S. Government contracts, partially offset by an increase in international sales across the company.

See “Revenue Recognition” in Note 1 to the consolidated financial statements in Part II, Item 8 for further information on sales by customer category.

See Segment Operating Results below for further information by segment and the Product and Service Analysis section that follows Segment Operating Results for product and service detail.

Operating Costs and Expenses

Operating costs and expenses primarily comprise labor, material, subcontractor and overhead costs, and are generally allocated to contracts as incurred. In accordance with industry practice and the regulations that govern cost accounting requirements for government contracts, most general management and corporate expenses incurred at the segment and corporate locations are considered allowable and allocable costs. Allowable and allocable general and administrative costs, including independent research and development (IR&D) and certain bid and proposal costs, are allocated on a systematic basis to contracts in progress.

Operating costs and expenses comprise the following:

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Product costs	\$ 10,333	\$ 10,431	\$ 10,623	(1)%	(2)%
Service costs	7,551	7,947	8,659	(5)%	(8)%
General and administrative expenses	2,566	2,405	2,256	7 %	7 %
Operating costs and expenses	\$ 20,450	\$ 20,783	\$ 21,538	(2)%	(4)%
Operating costs and expenses as a % of sales	86.9%	86.7%	87.3%		

2015 – Operating costs and expenses as a percentage of sales increased in 2015 as compared with 2014, which reduced our operating margin rate to 13.1 percent from 13.3 percent in the prior year period. The increase in operating costs and expenses as a percentage of sales was driven by \$179 million of lower segment operating income, as described in the Segment Operating Results section below, and \$21 million in higher unallocated corporate expenses, partially offset by a \$79 million increase in our net FAS (GAAP Financial Accounting Standards)/CAS pension adjustment. For further information regarding net FAS/CAS pension adjustment and unallocated corporate expenses, see Note 3 to the consolidated financial statements in Part II, Item 8.

2014 – Operating costs and expenses as a percentage of sales declined in 2014 as compared with 2013, which increased our operating margin rate to 13.3 percent from 12.7 percent in the prior year period. The reduction in

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operating costs and expenses as a percentage of sales was driven by a \$101 million increase in our net FAS/CAS pension adjustment and \$19 million of higher segment operating income, partially offset by \$50 million in higher unallocated corporate expenses.

2015 – General and administrative expenses as a percentage of sales increased to 10.9 percent in 2015 from 10.0 percent in 2014, principally due to an increase in IR&D as we continue to invest in future business opportunities.

2014 – General and administrative expenses as a percentage of sales increased to 10.0 percent in 2014 from 9.1 percent in 2013, principally due to an increase in IR&D as we continue to invest in future business opportunities.

For further information regarding product and service sales and costs, see the Product and Service Analysis section that follows Segment Operating Results.

Operating Income and Margin Rate

We define operating income as sales less operating costs and expenses, which includes general and administrative expenses. Operating margin rate is defined as operating income as a percentage of sales.

2015 – Operating income decreased \$120 million, or 4 percent, as compared with 2014, and operating margin rate decreased to 13.1 percent from 13.3 percent in 2014, primarily due to the lower sales volume described above and the absence in 2015 of a \$75 million benefit realized in 2014 in connection with agreements reached with the U.S. Government to settle certain claims relating to use of the company's intellectual property and a terminated program.

2014 – Operating income increased \$73 million, or 2 percent, as compared with 2013, and operating margin rate increased to 13.3 percent from 12.7 percent in 2013, primarily due to a \$101 million increase in our net FAS/CAS pension adjustment and higher operating income at Aerospace Systems due to the settlements described above, partially offset by higher unallocated corporate expenses and lower operating margin rates at Electronic Systems.

Federal and Foreign Income Taxes

2015 – Our effective tax rate for 2015 was 28.7 percent, as compared with 29.6 percent in 2014. This reduction was driven by a \$76 million increase in research credits primarily resulting from additional credits claimed on our prior year tax returns, partially offset by a \$51 million benefit recorded in 2014 for the partial resolution of the Internal Revenue Service (IRS) examination of our 2007-2009 tax returns.

2014 – Our effective tax rate for 2014 was 29.6 percent, as compared with 31.8 percent in 2013. The decline in the company's lower effective tax rate for 2014 reflects a \$51 million benefit for the partial resolution of our 2007-2009 IRS examination.

Net Earnings

2015 – Net earnings for 2015 decreased \$79 million, or 4 percent, as compared with 2014, primarily due to lower operating income and higher interest expense, partially offset by the lower effective tax rate described above.

2014 – Net earnings for 2014 increased \$117 million, or 6 percent, as compared with 2013, primarily due to higher operating income and a lower effective tax rate, partially offset by higher interest expense.

Diluted Earnings Per Share

2015 – Diluted earnings per share for 2015 increased \$0.64, or 7 percent, as compared with 2014. The increase is primarily due to a 10 percent reduction in weighted-average diluted shares outstanding resulting from shares repurchased in 2014 and 2015, partially offset by the 4 percent decline in net earnings discussed above.

2014 – Diluted earnings per share for 2014 increased \$1.40, or 17 percent, as compared with 2013. The increase is primarily due to a 9 percent reduction in weighted-average diluted shares outstanding resulting from shares repurchased in 2013 and 2014 and the 6 percent increase in net earnings discussed above.

Net Cash Provided by Operating Activities

See “Operating Cash Flow” in the Liquidity and Capital Resources section below for further information on net cash provided by operating activities.

SEGMENT OPERATING RESULTS

Basis of Presentation

At December 31, 2015, the company was aligned in four segments: Aerospace Systems, Electronic Systems, Information Systems and Technical Services. For a more complete description of each segment's products and services and for further information, see Business in Part I, Item 1.

This section discusses segment sales, operating income and operating margin rates. A reconciliation of segment sales to total sales is provided in Note 3 to the consolidated financial statements in Part II, Item 8. A reconciliation of

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segment operating income to total operating income, as well as a discussion of the reconciling items, is provided in Note 3 to the consolidated financial statements in Part II, Item 8. For purposes of the discussion in this Segment Operating Results section, references to operating income and operating margin rate reflect segment operating income and segment operating margin rate.

Segment Operating Income and Margin Rate

Segment operating income, as reconciled in the Reconciliation of Segment Operating Income to Total Operating Income table below, is a non-GAAP measure and is used by management as an internal measure for financial performance of our operating segments. Segment operating income reflects total earnings from our four segments, including allocated pension expense recognized under CAS, and excludes unallocated corporate items, including FAS pension expense.

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Segment operating income	\$ 2,920	\$ 3,099	\$ 3,080	(6)%	1%
Segment operating margin rate	12.4%	12.9%	12.5%		

2015 - Segment operating income for 2015 decreased \$179 million, or 6 percent, as compared with 2014 and segment operating margin rate decreased to 12.4 percent from 12.9 percent in 2014. The decrease in segment operating income was principally due to lower sales volume and the absence in 2015 of the \$75 million in settlements described above and a benefit of approximately \$45 million from lower 2014 CAS costs due to passage of the Highway and Transportation Funding Act of 2014 (HATFA). The absence in 2015 of the noted settlements and HATFA benefits was the primary driver of the lower 2015 operating margin rate.

2014 - Segment operating income for 2014 increased \$19 million, or 1 percent, as compared with 2013 and segment operating margin rate increased to 12.9 percent from 12.5 percent in 2013. The increase in segment operating income and margin rate was principally due to the benefits recognized as a result of the settlements and the HATFA legislation described above. These increases more than offset the impact of lower sales volume.

Net EAC Adjustments - We record changes in estimated contract operating margin at completion (net EAC adjustments) using the cumulative catch-up method of accounting. In aggregate, net EAC adjustments can have a significant effect on reported sales and operating income and are presented in the table below:

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Favorable EAC adjustments	\$ 924	\$ 922	\$ 1,044
Unfavorable EAC adjustments	(344)	(258)	(291)
Net EAC adjustments	\$ 580	\$ 664	\$ 753

Net EAC adjustments by segment are presented in the table below:

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Aerospace Systems	\$ 358	\$ 372	\$ 394
Electronic Systems	140	207	312
Information Systems	57	73	49
Technical Services	39	44	43
Eliminations	(14)	(32)	(45)
Net EAC adjustments	\$ 580	\$ 664	\$ 753

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Reconciliation of Segment Operating Income to Total Operating Income - The table below reconciles segment operating income to total operating income by including the impact of net FAS/CAS pension adjustments, as well as certain corporate-level expenses, which are not considered allowable or allocable under applicable CAS or FAR (unallocated corporate expenses). See Note 3 to the consolidated financial statements in Part II, Item 8 for further information on the net FAS/CAS pension adjustment and unallocated corporate expenses.

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Segment operating income	\$ 2,920	\$ 3,099	\$ 3,080	(6)%	1 %
CAS pension expense	703	384	542	83 %	(29)%
Less: FAS pension expense	(355)	(115)	(374)	209 %	(69)%
Net FAS/CAS pension adjustment	348	269	168	29 %	60 %
Unallocated corporate expenses	(190)	(169)	(119)	12 %	42 %
Other	(2)	(3)	(6)	(33)%	(50)%
Total operating income	\$ 3,076	\$ 3,196	\$ 3,123	(4)%	2 %

Aerospace Systems

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Sales	\$ 10,004	\$ 9,997	\$ 10,014	— %	— %
Operating income	1,220	1,315	1,215	(7)%	8 %
Operating margin rate	12.2%	13.2%	12.1%		

2015 - Aerospace Systems sales for 2015 were comparable to the prior year. Sales in 2014 included the \$75 million in settlements described above. Excluding the settlements, sales for 2015 increased \$82 million, or 1 percent, as compared to 2014. The increase in unmanned systems (UMS) sales reflects higher volume on a number of programs, including Global Hawk. These increases were partially offset by lower volume on the Fire Scout and NATO Alliance Ground Surveillance (AGS) programs. Military aircraft systems (MAS) sales increased principally due to the transition to full rate production on the E-2D Advanced Hawkeye program, increased deliveries on the F-35 program and higher volume on the Joint Surveillance Target Attack Radar System (JSTARS) program. These increases were partially offset by lower volume on the F/A-18 program due to fewer deliveries as the program ramps down. Space sales include higher volume on restricted programs, partially offset by lower volume on the Advanced Extremely High Frequency (AEHF) program.

Operating income for 2015 decreased \$95 million, or 7 percent, and operating margin rate decreased to 12.2 percent from 13.2 percent. Lower operating income and margin rate in 2015 were primarily due to the benefits recognized in 2014 associated with the settlements described above.

2014 - Aerospace Systems sales for 2014 were comparable to 2013, and include the impact of the settlements described in the Segment Operating Income and Margin Rate section above. Excluding the settlements, Aerospace Systems had lower sales on UMS, space and MAS programs. The decrease in UMS programs reflects declines of \$136 million on Global Hawk due to lower production activity and \$111 million on Fire Scout as a result of lower development activity. These declines were partially offset by \$135 million of higher volume on the NATO AGS program. The decrease in space programs was mainly due to lower volume on the James Webb Space Telescope and AEHF programs. The decrease in MAS programs was primarily the result of lower volume on the JSTARS, F-35 and B-2 programs, partially offset by higher volume of \$87 million on the E-2D Advanced Hawkeye program.

Operating income for 2014 increased \$100 million, or 8 percent, and operating margin rate increased to 13.2 percent, from 12.1 percent. Higher operating income and margin rate in 2014 were primarily due to the settlements described above and improved performance.

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Electronic Systems

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Sales	\$ 6,842	\$ 6,951	\$ 7,149	(2)%	(3)%
Operating income	1,068	1,148	1,226	(7)%	(6)%
<i>Operating margin rate</i>	<i>15.6%</i>	<i>16.5%</i>	<i>17.1%</i>		

2015 - Electronic Systems sales for 2015 decreased \$109 million, or 2 percent, as compared with 2014. The decrease was primarily due to lower volume on Airborne Intelligence, Surveillance, and Reconnaissance & Targeting (AISR&T) Systems and Land & Self Protection Systems (L&SPS), partially offset by higher volume on Navigation & Maritime Systems (N&MS) programs. AISR&T sales decreased primarily due to lower volume on the LITENING program. The decline in L&SPS is due to in-theater force reductions and ramp-down on an international program, partially offset by increased deliveries on infrared countermeasures (IRCM) programs and ramp-up on the G/ATOR program. The increase in N&MS sales reflects higher volume from ramp-up activities on a number of marine and undersea systems programs.

Operating income for 2015 decreased \$80 million, or 7 percent, and operating margin rate decreased to 15.6 percent from 16.5 percent. Operating income and margin rate for 2015 decreased primarily due to business mix changes, which resulted in lower volume for mature fixed price production programs and higher volume for cost-type development programs, and less favorable performance on AISR&T and L&SPS programs.

2014 - Electronic Systems sales for 2014 decreased \$198 million, or 3 percent, as compared with 2013. Lower sales are principally due to lower volume for L&SPS programs, including lower deliveries of \$174 million on IRCM and laser systems; lower volume for U.S. intelligence, surveillance, reconnaissance and targeting programs, including \$93 million of lower deliveries on combat avionics; and \$109 million of lower volume for N&MS programs. The declines were partially offset by higher sales of \$178 million on international programs.

Operating income for 2014 decreased \$78 million, or 6 percent, and operating margin rate decreased to 16.5 percent from 17.1 percent. Operating income and margin rate for 2014 declined primarily due to a reduction in net EAC adjustments, lower volume and the absence in 2014 of the benefit from the reversal of a \$26 million non-programmatic risk reserve in 2013.

Information Systems

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Sales	\$ 5,894	\$ 6,222	\$ 6,596	(5)%	(6)%
Operating income	616	611	633	1 %	(3)%
<i>Operating margin rate</i>	<i>10.5%</i>	<i>9.8%</i>	<i>9.6%</i>		

2015 - Information Systems sales for 2015 decreased \$328 million, or 5 percent, as compared with 2014. The decrease is primarily driven by lower volume on Command and Control (C2) and civil programs. The decrease in C2 is mainly driven by lower volume on the Consolidated Afloat Network and Enterprise Services program, the impact of in-theater force reductions, and completion of the Ground Combat Vehicle contract. The decrease in civil is primarily due to the restructuring of the Emergency Communications Transformation Program Stage II contract.

Operating income for 2015 increased \$5 million, or 1 percent, and operating margin rate increased to 10.5 percent from 9.8 percent. The increase in operating income and margin rate reflects improved performance, partially offset by the decline in sales volume described above.

2014 - Information Systems sales for 2014 decreased \$374 million, or 6 percent, as compared with 2013. Sales principally declined as a result of lower volume of \$294 million on C2 programs and \$62 million on communications programs due to in-theater force reductions, reduced funding levels and the wind-down of various programs.

Operating income for 2014 decreased \$22 million, or 3 percent, and operating margin rate increased to 9.8 percent from 9.6 percent. The lower operating income is primarily a result of the lower sales described above. The higher operating margin rate reflects additional operating income resulting from improved performance.

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Technical Services

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Sales	\$ 2,838	\$ 2,799	\$ 2,843	1%	(2)%
Operating income	254	261	262	(3)%	—%
Operating margin rate	8.9%	9.3%	9.2%		

2015 - Technical Services sales for 2015 increased \$39 million, or 1 percent, as compared with 2014. The increase was principally due to higher volume on mission solutions and readiness (MS&R) programs, partially offset by lower volume on integrated logistics and modernization (IL&M) programs. The increase in MS&R was primarily due to higher volume on the Saudi Arabian Ministry of National Guard Training Support program (through our interest in a joint venture for which we consolidate the financial results). The decrease in IL&M was mainly due to ramp-down activities on the InterContinental Ballistic Missile (ICBM) program, partially offset by increased volume on the JSTARS and Hunter programs.

Operating income for 2015 decreased \$7 million, or 3 percent, and operating margin rate decreased to 8.9 percent from 9.3 percent. The declines in both operating income and operating margin rate were principally due to lower income from an unconsolidated joint venture than in the prior year period.

2014 - Technical Services sales for 2014 decreased \$44 million, or 2 percent, as compared with 2013. The decrease was primarily due to lower volume on the ICBM, Hunter and Combined Tactical Training Range programs, which were partially offset by growth in international sales, principally as a result of the acquisition of Qantas Defence Services Pty Limited (QDS) in the first quarter of 2014.

Operating income and margin rate for 2014 were comparable to 2013.

PRODUCT AND SERVICE ANALYSIS

The following table presents product and service sales and operating costs and expenses by segment:

<i>\$ in millions</i>	Year Ended December 31					
	2015		2014		2013	
Segment Information:	Sales	Operating Costs and Expenses	Sales	Operating Costs and Expenses	Sales	Operating Costs and Expenses
Aerospace Systems						
Product	\$ 8,001	\$ 7,037	\$ 7,986	\$ 6,897	\$ 8,210	\$ 7,197
Service	2,003	1,747	2,011	1,785	1,804	1,602
Electronic Systems						
Product	5,530	4,706	5,532	4,622	5,574	4,612
Service	1,312	1,068	1,419	1,181	1,575	1,311
Information Systems						
Product	1,282	1,157	1,335	1,244	990	895
Service	4,612	4,121	4,887	4,367	5,606	5,068
Technical Services						
Product	222	210	184	173	210	191
Service	2,616	2,374	2,615	2,365	2,633	2,390
Segment Totals						
Total Product	\$ 15,035	\$ 13,110	\$ 15,037	\$ 12,936	\$ 14,984	\$ 12,895
Total Service	10,543	9,310	10,932	9,698	11,618	10,371
Intersegment eliminations	(2,052)	(1,814)	(1,990)	(1,754)	(1,941)	(1,685)
Total Segment ⁽¹⁾	\$ 23,526	\$ 20,606	\$ 23,979	\$ 20,880	\$ 24,661	\$ 21,581

⁽¹⁾ The reconciliation of segment operating income to total operating income, as well as a discussion of the reconciling items, is included in the Segment Operating Results section above.

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Product Sales and Product Costs

2015 - Product sales for 2015 were comparable with 2014. Sales in 2014 included the \$75 million in settlements at Aerospace Systems as described above and sales in 2015 reflect lower product sales at Information Systems and higher product sales at Technical Services. The decrease at Information Systems was primarily due to lower product sales on certain cyber programs, partially offset by higher F-35 volume. The increase at Technical Services was primarily due to higher volume on intercompany restricted work.

Product costs for 2015 increased \$174 million, or 1 percent, as compared to 2014. The increase was primarily due to higher product costs at Aerospace Systems and Electronic Systems due to lower performance and changes in business mix. These increases were partially offset by a reduction in product costs at Information Systems due to lower sales and improved performance.

2014 - Product sales for 2014 were slightly higher than 2013, primarily due to higher product sales at Information Systems, offset by lower product sales at Aerospace Systems. The increase at Information Systems was primarily due to higher product sales on certain restricted and C2 programs. The decrease at Aerospace Systems was primarily driven by lower product volume in unmanned and space programs, partially offset by the settlements described in the Segment Operating Results section above.

Product costs for 2014 were slightly higher than 2013, primarily due to higher product costs at Information Systems, offset by lower product costs at Aerospace Systems, consistent with the changes in product sales described above.

Service Sales and Service Costs

2015 - Service sales for 2015 decreased \$389 million, or 4 percent, as compared with 2014. The decrease was primarily due to lower service sales at Information Systems and Electronic Systems. The decrease at Information Systems was primarily due to lower volume on C2 and civil programs, including the impact of in-theater force reductions. The decrease at Electronic Systems was primarily due to lower service sales on certain tactical sensor and other programs.

Service costs for 2015 decreased \$388 million, or 4 percent, as compared with 2014, consistent with the change in service sales described above.

2014 - Service sales for 2014 decreased \$686 million, or 6 percent, as compared with 2013. The decrease was primarily driven by lower service sales at Information Systems, principally from reduced volume on restricted work and the impacts of in-theater force reductions as described in the Segment Operating Results section above.

Service costs for 2014 decreased \$673 million, or 6 percent, as compared with 2013, consistent with the change in service sales described above.

BACKLOG

Total backlog includes 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. For multi-year service contracts with non-U.S. Government customers having no stated contract values, backlog includes only the amounts committed by the customer. Backlog is converted into sales as costs are incurred or deliveries are made.

Backlog consisted of the following at December 31, 2015 and 2014:

<i>\$ in millions</i>	2015			2014	% Change in 2015
	Funded	Unfunded	Total Backlog	Total Backlog	
Aerospace Systems	\$ 8,218	\$ 9,381	\$ 17,599	\$ 20,063	(12)%
Electronic Systems	7,323	2,342	9,665	9,715	(1)%
Information Systems	2,857	3,115	5,972	6,115	(2)%
Technical Services	2,355	332	2,687	2,306	17 %
Total backlog	\$ 20,753	\$ 15,170	\$ 35,923	\$ 38,199	(6)%

The percentage of total backlog from the U.S. Government, International, and Other Customers at December 31, 2015 totaled 81 percent, 16 percent, and 3 percent, respectively.

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New Awards

2015 - The estimated value of contract awards recorded during 2015 was \$21.3 billion. Significant new awards during 2015 include \$1.8 billion for the F-35 program, \$1.1 billion for the E-2D Advanced Hawkeye program, \$947 million for the Saudi Arabian Ministry of National Guard Training Support program (through our interest in a joint venture for which we consolidate the financial results), \$597 million for the B-2 program and \$504 million for the F/A-18 program.

On October 27, 2015, the U.S. Air Force announced it was awarding us a contract for Engineering and Manufacturing Development and early production for the Long Range Strike Bomber (LRS-B). In November 2015, the unsuccessful offeror filed a protest asking the U.S. Government Accountability Office (GAO) to review the decision to award the company the LRS-B contract, triggering an automatic stay of performance of the contract. As a result, the LRS-B award is not included in 2015 new awards or backlog.

2014 - The estimated value of contract awards recorded during 2014 was \$25.0 billion. Significant new awards during 2014 include \$4.1 billion for the E-2D Advanced Hawkeye program, \$1.4 billion for the Global Hawk program, \$1.3 billion for the F-35 program, \$727 million for the B-2 program, and \$560 million for the Virginia Class Submarine program.

LIQUIDITY AND CAPITAL RESOURCES

We endeavor to ensure the most efficient conversion of operating income into cash for deployment in our business and to maximize shareholder value. In addition to our cash position, we use various financial measures to assist in capital deployment decision-making, including cash provided by operating activities, free cash flow, and net debt-to-equity and net debt-to-capital ratios. We believe these measures are useful to investors in assessing our financial performance and condition.

Cash balances and cash generated from operating activities, supplemented by borrowings under credit facilities and/or in the capital markets, if needed, are expected to be sufficient to fund our operations for at least the next 12 months.

Operating Cash Flow

The table below summarizes the key components of cash flow provided by operating activities:

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Net earnings	\$ 1,990	\$ 2,069	\$ 1,952
Non-cash items ⁽¹⁾	1,035	731	724
Changes in assets and liabilities:			
Trade working capital	(564)	(121)	54
Retiree benefits	(263)	(17)	(281)
Other, net	(36)	(69)	34
Net cash provided by operating activities	\$ 2,162	\$ 2,593	\$ 2,483

⁽¹⁾ Includes depreciation and amortization, stock based compensation expense (including related excess tax benefits) and deferred income taxes

2015 – Net cash provided by operating activities for 2015 decreased by \$431 million, or 17 percent, as compared with 2014, principally due to changes in trade working capital and a \$500 million voluntary pre-tax pension contribution made in March 2015, partially offset by lower net tax payments.

2014 – Net cash provided by operating activities for 2014 increased by \$110 million, or 4 percent, as compared with 2013, principally due to a \$500 million voluntary pre-tax pension contribution made in April 2013, partially offset by changes in trade working capital during 2014.

As of December 31, 2015, the amount of cash, cash equivalents and marketable securities held outside of the U.S. by foreign subsidiaries was \$551 million. We intend to permanently reinvest these balances and expect future U.S. cash generation will be sufficient to meet future U.S. cash needs. Capital expenditure commitments were \$393 million at December 31, 2015, and are expected to be paid with cash on hand.

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Free Cash Flow

We define free cash flow as cash provided by operating activities less capital expenditures. We believe free cash flow is a useful measure for investors to consider as it represents cash flow the company has available after capital spending to invest for future growth, strengthen the balance sheet and/or return to shareholders through dividends and share repurchases. Free cash flow is a key factor in our planning for and consideration of strategic acquisitions, payment of dividends and stock repurchases.

Free cash flow is not a measure of financial performance under GAAP, and may not be defined and calculated by other companies in the same manner. This measure should not be considered in isolation, as a measure of residual cash flow available for discretionary purposes, or as an alternative to operating results presented in accordance with GAAP as indicators of performance.

The table below reconciles cash provided by operating activities to free cash flow:

<i>\$ in millions</i>	Year Ended December 31			% Change in	
	2015	2014	2013	2015	2014
Net cash provided by operating activities	\$ 2,162	\$ 2,593	\$ 2,483	(17)%	4 %
Less: Capital expenditures	(471)	(561)	(364)	(16)%	54 %
Free cash flow	\$ 1,691	\$ 2,032	\$ 2,119	(17)%	(4)%

2015 – Free cash flow for 2015 decreased \$341 million, or 17 percent, as compared with 2014. The decrease was principally driven by the lower net cash provided by operating activities described above, partially offset by a reduction in capital expenditures.

2014 – Free cash flow for 2014 decreased \$87 million, or 4 percent, as compared with 2013. The decrease was principally driven by higher capital expenditures associated with our Aerospace Systems' Centers of Excellence, partially offset by an increase in net cash provided by operating activities, as described above.

Investing Cash Flow

2015 - Cash used in investing activities for 2015 decreased \$214 million, or 33 percent, as compared with 2014. The decrease was principally due to lower capital expenditures and the 2014 acquisition of QDS.

2014 - Cash used in investing activities for 2014 increased \$299 million, or 86 percent, as compared with 2013. The increase was principally due to higher capital expenditures associated with our Aerospace Systems' Centers of Excellence, as well as the acquisition of QDS.

Financing Cash Flow

2015 - Net cash used in financing activities during 2015 was comparable with the prior year period and reflects an increase in share repurchases and dividends offset by \$600 million of net proceeds from our issuance of unsecured senior notes in 2015.

2014 - Cash used in financing activities for 2014 increased \$2.4 billion, or 281 percent, as compared with 2013. The increase was primarily due to the absence in 2014 of \$2.8 billion of net proceeds from our issuance of unsecured senior notes, of which \$850 million was used for the redemption of existing debt in 2013, as well as increased share repurchases in 2014.

Credit Facility and Unsecured Senior Notes - See Note 9 to the consolidated financial statements in Part II, Item 8 for further information on our credit facility and unsecured senior notes.

Financial Arrangements - See Note 11 to the consolidated financial statements in Part II, Item 8 for further information on our use of standby letters of credit and guarantees.

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Other Sources of Capital - We believe we can obtain additional capital, if necessary for long-term liquidity, from such sources as the public or private capital markets, the sale of assets, sale and leaseback of operating assets, and leasing rather than purchasing new assets. We have an effective shelf registration statement on file with the SEC, which allows us to access capital in a timely manner.

Share Repurchases - In October 2015, the company completed its previously announced goal of repurchasing 60 million shares of common stock by the end of 2015. See Note 2 of the consolidated financial statements in Part II, Item 8 for further information on our share repurchase programs.

Contractual Obligations

The following table presents our contractual obligations as of December 31, 2015, and the estimated timing of future cash payments:

<i>\$ in millions</i>	Total	2016	2017- 2018	2019- 2020	2021 and beyond
Long-term debt	\$ 6,523	\$ 110	\$ 1,056	\$ 535	\$ 4,822
Interest payments on long-term debt	4,114	298	573	503	2,740
Operating leases	839	251	336	160	92
Purchase obligations ⁽¹⁾	8,318	4,495	2,231	1,507	85
Other long-term liabilities ⁽²⁾	1,044	269	327	143	305
Total contractual obligations	\$ 20,838	\$ 5,423	\$ 4,523	\$ 2,848	\$ 8,044

⁽¹⁾ A "purchase obligation" is defined as an agreement to purchase goods or services that is enforceable and legally binding on us and that specifies all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum, or variable price provisions; and the approximate timing of the transaction. These amounts are primarily comprised of open purchase order commitments to suppliers and subcontractors pertaining to funded contracts.

⁽²⁾ Other long-term liabilities, including their current portions, primarily consist of total accrued environmental reserves, deferred compensation and other miscellaneous liabilities, of which \$113 million is related to environmental reserves recorded in other current liabilities. It excludes obligations for uncertain tax positions of \$246 million, as the timing of such payments, if any, cannot be reasonably estimated.

The table above excludes estimated minimum funding requirements for retirement and other post-retirement benefit plans, as set forth by the Employee Retirement Income Security Act, as amended (ERISA). For further information about future minimum contributions for these plans, see Note 12 to the consolidated financial statements in Part II, Item 8. Further details regarding long-term debt and operating leases can be found in Notes 9 and 11, respectively, to the consolidated financial statements in Part II, Item 8.

CRITICAL ACCOUNTING POLICIES, ESTIMATES, AND JUDGMENTS

Our consolidated financial statements are based on the application of U.S. GAAP, which require us to make estimates and assumptions about future events that affect the amounts reported in our consolidated financial statements and the accompanying notes. 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 in Part II, Item 8.

Revenue Recognition

Due to the long-term nature of our contracts, we generally recognize revenue using the percentage-of-completion method of accounting as work on our contracts progresses, which requires us to make reasonably dependable estimates for the design, manufacture and delivery of our products and services. In accounting for these contracts, we utilize either the cost-to-cost or the units-of-delivery method of percentage-of-completion accounting, with cost-to-cost being the predominant method.

Sales may include estimated amounts not contractually agreed to by the customer, including cost or performance incentives (such as award and incentive fees), un-priced change orders, claims and requests for equitable adjustment. Amounts pertaining to cost and/or performance incentives are included in estimated contract sales when they are reasonably estimable.

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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 operating margin based on estimated contract sales and cost. Since contract costs are typically incurred over a period of several years, estimation of these costs requires the use of judgment. Factors considered in estimating the cost of the work to be completed include 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.

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. Changes in estimates of contract sales and cost are frequent. 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. 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 risks affecting contract costs, performance issues with our subcontractors or suppliers, changes in indirect cost allocations, such as overhead and general and administrative expenses, and changes in estimated award and incentive fees. EACs are also adjusted to reflect estimated risks related to contract performance. These risks typically include technical, schedule and performance risk based on our evaluation of the contract effort. Similarly, the changes in estimates may include identified opportunities for operating margin improvement.

For the impacts of changes in estimates on our consolidated statement of earnings and comprehensive income (loss), see the Consolidating Operating Results section above and Note 1 to the consolidated financial statements in Part II, Item 8.

Retirement Benefits

Overview – The determination of projected benefit obligations and the fair value of plan assets for our pension and other post-retirement plans requires the use of several actuarial assumptions. We perform an annual review of these assumptions in consultation with our outside actuaries. As we determine changes in the assumptions are warranted, or as a result of plan amendments, future pension and other post-retirement benefit expense and our projected benefit obligation could increase or decrease. The principal assumptions that have a significant effect on our consolidated financial position and annual 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 mortality rate of those covered by our pension and other post-retirement benefit plans.

Discount Rate – The discount rate represents the interest rate that is used to determine the present value of future cash flows currently expected to be required to settle our pension and other post-retirement benefit 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 portfolio of bonds matching the notional cash outflows related to projected benefit payments for each significant benefit plan. Taking into consideration the factors noted above, our weighted-average composite pension discount rate was 4.53 percent at December 31, 2015, and 4.12 percent at December 31, 2014.

The effects of a hypothetical change in the discount rate may be nonlinear and asymmetrical for future years as the discount rate changes and the accounting corridor is applied. The accounting corridor is a defined range within which amortization of net gains and losses is not required and is equal to 10 percent of the greater of plan assets or benefit obligations. Holding all other assumptions constant, an increase or decrease of 25 basis points in the December 31, 2015 discount rate assumption would have the following estimated effects on 2015 pension and other post-retirement benefit obligations and 2016 expected pension and other post-retirement expense:

<i>\$ increase/(decrease) in millions</i>	25 Basis Point Decrease in Rate	25 Basis Point Increase in Rate
Pension expense	\$ 97	\$ (93)
Other post-retirement benefit expense	1	(1)
Pension obligation	982	(931)
Other post-retirement benefit obligation	58	(56)

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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. Interest is credited monthly using the 30-Year Treasury bond rate. The interest crediting rate is part of the cash balance formula and independent of actual pension investment earnings. The cash balance crediting rate tends to move in concert with the discount rate but has an offsetting effect on pension benefit obligations and pension expense in comparison to the discount rate. Although current 30-Year Treasury bond rates are near historically low levels, we expect such bond rates to rise in the future. The cash balance crediting rate assumption has been set to its current level of 3.0 percent as of December 31, 2015, growing to 3.75 percent by 2021. Holding all other assumptions constant, an increase or decrease of 25 basis points in the December 31, 2015 cash balance crediting rate assumption would have the following estimated effects on 2015 pension benefit obligations and 2016 expected pension expense:

<i>\$ increase/(decrease) in millions</i>	25 Basis Point Decrease in Rate	25 Basis Point Increase in Rate
Pension expense	\$ (25)	\$ 27
Pension obligation	(122)	128

Expected Long-Term Rate of Return on Plan Assets – The expected long-term rate of return on plan assets represents the average rate of earnings expected on funds invested. Through consultation with our investment management team and outside investment advisers, management develops expected long-term returns for each of the plans' strategic asset classes. In addition to our historical investment performance, we consider several factors, including current market data such as yields/price-earnings ratios, historical market returns over long periods and periodic surveys of investment managers' expectations. Using policy target allocation percentages and the asset class expected returns, we calculate a weighted-average expected return.

The assumptions used for pension benefits are consistent with those used for other post-retirement benefits. The long-term rate of return on plan assets used for medical and life benefits is reduced to allow for the impact of tax on expected returns as the earnings of certain Voluntary Employee Beneficiary Association (VEBA) trusts are taxable, unlike the pension trust.

For 2015 and 2014, we assumed an expected long-term rate of return on pension plan assets of 8.0 percent and assumed an expected long-term rate of return on other post-retirement benefit plan assets of 7.58 percent and 7.45 percent, respectively. For 2016, we have assumed an expected long-term rate of return on plan assets of 8.0 percent on pension plans and 7.70 percent on other post-retirement benefit plans. Holding all other assumptions constant, an increase or decrease of 25 basis points in the December 31, 2015 expected long-term rate of return on plan asset assumption would have the following estimated effects on 2016 pension and other post-retirement benefit expense:

<i>\$ increase/(decrease) in millions</i>	25 Basis Point Decrease	25 Basis Point Increase
Pension expense	\$ 58	\$ (58)
Other post-retirement benefit expense	3	(3)

Estimated Fair Market Value of Plan Assets – For certain plan assets where the fair market value is not readily determinable, such as real estate, private equity and hedge funds, estimates of fair value are determined using the best information available. Estimated fair values on these plan assets are based on redemption values and net asset values, as well as valuation methodologies that include third party appraisals, comparable transactions, discounted cash flow valuation models and public market data.

Mortality Rate – Mortality assumptions are used to estimate life expectancies of plan participants. In October 2014, the Society of Actuaries issued updated mortality tables and a mortality improvement scale, which reflect longer life expectancies than previously projected. In October 2015, the SOA issued an updated mortality improvement scale which further refined the previous scale based on additional data and which generally contained lower mortality improvement projections. In consideration of this information, we studied our historical mortality experience and developed an expectation for continued future mortality improvements. Based on this data, we updated the mortality assumptions used in calculating our pension and post-retirement benefit obligations recognized at December 31, 2015, and the amounts estimated for our 2016 pension and post-retirement benefit expense.

For further information regarding our pension and post-retirement benefits, see Risk Factors in Part I, Item 1A and Note 12 to the consolidated financial statements in Part II, Item 8.

Litigation, Commitments and Contingencies

We are subject to a range of claims, 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 and counsel. 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 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 than anticipated, information regarding the potential causes of contamination, results of efforts to involve other responsible parties, financial capabilities of other responsible parties, changes in laws and regulations or contractual obligations affecting remediation requirements or other obligations, and improvements in remediation technology.

For further information on litigation, commitments and contingencies, see Risk Factors in Part I, Item 1A, and Note 1, Note 10 and Note 11 to the consolidated financial statements in Part II, Item 8.

Goodwill

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.

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, 2015 and 2014, respectively, indicated that the estimated fair value of each reporting unit substantially exceeded its respective carrying value. There were no impairment charges recorded in the years ended December 31, 2015, 2014 and 2013.

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 during an interim period. 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.

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 that the reporting unit expects to generate in the future, consistent with our operating plans. This income valuation method requires management to project sales, operating expenses, working capital, capital spending 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.

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 the estimation of a business' fair value and the relative size of our recorded goodwill, differences in assumptions may have a material effect on the results of our impairment analysis.

OTHER MATTERS

Off-Balance Sheet Arrangements

As of December 31, 2015, we had no significant off-balance sheet arrangements other than operating leases. For a description of our operating leases, see Note 11 to the consolidated financial statements in Part II, Item 8.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

EQUITY RISK

We are exposed to market risk with respect to our portfolio of trading and available-for-sale marketable securities with a fair value of \$310 million at December 31, 2015. 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, 2015. At December 31, 2015, we have \$6.5 billion of long-term debt, primarily consisting of fixed-rate debt, with a fair value of approximately \$6.9 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.

FOREIGN CURRENCY RISK

We are exposed to foreign currency risk with respect to our international operations. We enter into 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, 2015, foreign currency forward contracts with a notional amount of \$141 million were outstanding. At December 31, 2015, 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

We have generally been able to anticipate increases in costs when pricing our contracts. Bids for longer-term firm fixed-price contracts typically include assumptions for labor and other cost escalations in amounts that historically have been sufficient to cover cost increases over the period of performance.

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

We have audited the accompanying consolidated statements of financial position of Northrop Grumman Corporation and subsidiaries (the “Company”) as of December 31, 2015 and 2014, and the related consolidated statements of earnings and comprehensive income (loss), changes in shareholders’ equity, and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Northrop Grumman Corporation and subsidiaries at December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015, 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), the Company’s internal control over financial reporting as of December 31, 2015, 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 February 1, 2016 expressed an unqualified opinion on the Company’s internal control over financial reporting.

/s/ Deloitte & Touche LLP
McLean, Virginia
February 1, 2016

NORTHROP GRUMMAN CORPORATION

CONSOLIDATED STATEMENTS OF EARNINGS AND COMPREHENSIVE INCOME (LOSS)

<i>\$ in millions, except per share amounts</i>	Year Ended December 31		
	2015	2014	2013
Sales			
Product	\$ 13,966	\$ 14,015	\$ 14,033
Service	9,560	9,964	10,628
Total sales	23,526	23,979	24,661
Operating costs and expenses			
Product	10,333	10,431	10,623
Service	7,551	7,947	8,659
General and administrative expenses	2,566	2,405	2,256
Operating income	3,076	3,196	3,123
Other (expense) income			
Interest expense	(301)	(282)	(257)
Other, net	15	23	(3)
Earnings before income taxes	2,790	2,937	2,863
Federal and foreign income tax expense	800	868	911
Net earnings	\$ 1,990	\$ 2,069	\$ 1,952
Basic earnings per share	\$ 10.51	\$ 9.91	\$ 8.50
Weighted-average common shares outstanding, in millions	189.4	208.8	229.6
Diluted earnings per share	\$ 10.39	\$ 9.75	\$ 8.35
Weighted-average diluted shares outstanding, in millions	191.6	212.1	233.9
Net earnings (from above)	\$ 1,990	\$ 2,069	\$ 1,952
Other comprehensive income (loss)			
Change in unamortized benefit plan costs, net of tax (expense) benefit of (\$45) in 2015, \$1,423 in 2014 and (\$1,177) in 2013	75	(2,316)	1,790
Change in cumulative translation adjustment	(41)	(59)	14
Other, net	2	3	(1)
Other comprehensive income (loss), net of tax	36	(2,372)	1,803
Comprehensive income (loss)	\$ 2,026	\$ (303)	\$ 3,755

The accompanying notes are an integral part of these consolidated financial statements.

NORTHROP GRUMMAN CORPORATION

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

<i>\$ in millions</i>	December 31	
	2015	2014
Assets		
Cash and cash equivalents	\$ 2,319	\$ 3,863
Accounts receivable, net	2,841	2,806
Inventoried costs, net	807	742
Prepaid expenses and other current assets	367	369
Total current assets	6,334	7,780
Property, plant and equipment, net of accumulated depreciation of \$4,849 in 2015 and \$4,611 in 2014	3,064	2,991
Goodwill	12,460	12,466
Deferred tax assets	1,409	2,026
Other non-current assets	1,187	1,309
Total assets	\$ 24,454	\$ 26,572
Liabilities		
Trade accounts payable	\$ 1,282	\$ 1,305
Accrued employee compensation	1,195	1,441
Advance payments and amounts in excess of costs incurred	1,537	1,713
Other current liabilities	1,443	1,433
Total current liabilities	5,457	5,892
Long-term debt, net of current portion of \$110 in 2015 and \$3 in 2014	6,416	5,925
Pension and other post-retirement benefit plan liabilities	6,172	6,555
Other non-current liabilities	887	965
Total liabilities	18,932	19,337
Commitments and contingencies (Note 11)		
Shareholders' equity		
Preferred stock, \$1 par value; 10,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, \$1 par value; 800,000,000 shares authorized; issued and outstanding: 2015—181,303,083 and 2014—198,930,240	181	199
Paid-in capital	—	—
Retained earnings	10,661	12,392
Accumulated other comprehensive loss	(5,320)	(5,356)
Total shareholders' equity	5,522	7,235
Total liabilities and shareholders' equity	\$ 24,454	\$ 26,572

The accompanying notes are an integral part of these consolidated financial statements.

NORTHROP GRUMMAN CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Operating activities			
Net earnings	\$ 1,990	\$ 2,069	\$ 1,952
Adjustments to reconcile to net cash provided by operating activities:			
Depreciation and amortization	467	462	495
Stock-based compensation	99	134	144
Excess tax benefits from stock-based compensation	(103)	(81)	(43)
Deferred income taxes	572	216	128
Changes in assets and liabilities:			
Accounts receivable, net	(30)	(105)	171
Inventoried costs, net	(80)	(24)	101
Prepaid expenses and other assets	43	13	(51)
Accounts payable and other liabilities	(632)	(89)	(169)
Income taxes payable	135	84	2
Retiree benefits	(263)	(17)	(281)
Other, net	(36)	(69)	34
Net cash provided by operating activities	2,162	2,593	2,483
Investing activities			
Capital expenditures	(471)	(561)	(364)
Other investing activities, net	40	(84)	18
Net cash used in investing activities	(431)	(645)	(346)
Financing activities			
Common stock repurchases	(3,182)	(2,668)	(2,371)
Net proceeds from issuance of long-term debt	600	—	2,841
Cash dividends paid	(603)	(563)	(545)
Payments of long-term debt	—	—	(877)
Other financing activities, net	(90)	(4)	103
Net cash used in financing activities	(3,275)	(3,235)	(849)
(Decrease) increase in cash and cash equivalents	(1,544)	(1,287)	1,288
Cash and cash equivalents, beginning of year	3,863	5,150	3,862
Cash and cash equivalents, end of year	\$ 2,319	\$ 3,863	\$ 5,150

The accompanying notes are an integral part of these consolidated financial statements.

NORTHROP GRUMMAN CORPORATION

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

<i>\$ in millions, except per share amounts</i>	Year Ended December 31		
	2015	2014	2013
Common stock			
Beginning of year	\$ 199	\$ 218	\$ 239
Common stock repurchased	(19)	(21)	(27)
Shares issued for employee stock awards and options	1	2	6
End of year	181	199	218
Paid-in capital			
Beginning of year	—	848	2,924
Common stock repurchased	—	(999)	(2,345)
Stock compensation	—	139	274
Other	—	12	(5)
End of year	—	—	848
Retained earnings			
Beginning of year	12,392	12,538	11,138
Common stock repurchased	(3,154)	(1,637)	—
Net earnings	1,990	2,069	1,952
Dividends declared	(596)	(578)	(552)
Stock compensation	29	—	—
End of year	10,661	12,392	12,538
Accumulated other comprehensive loss			
Beginning of year	(5,356)	(2,984)	(4,787)
Other comprehensive income (loss), net of tax	36	(2,372)	1,803
End of year	(5,320)	(5,356)	(2,984)
Total shareholders' equity	\$ 5,522	\$ 7,235	\$ 10,620
Cash dividends declared per share	\$ 3.10	\$ 2.71	\$ 2.38

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations

Northrop Grumman Corporation (herein referred to as “Northrop Grumman,” the “company,” “we,” “us,” or “our”) is a leading global security company. We offer a broad portfolio of capabilities and technologies that enable us to deliver innovative products, systems and solutions for applications that range from undersea to outer space and into cyberspace. We provide products, systems and solutions in unmanned systems; cyber; command, control, communications and computers (C4), intelligence, surveillance, and reconnaissance (C4ISR); strike aircraft; and logistics and modernization to government and commercial customers worldwide. We participate in many high-priority defense and government programs in the United States (U.S.) and abroad. We conduct most of our business with the U.S. Government, principally the Department of Defense (DoD) and intelligence community. We also conduct business with foreign, state and local governments and commercial customers.

Principles of Consolidation

The consolidated financial statements include the accounts of Northrop Grumman and its subsidiaries. Material 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.

Accounting Estimates

The company’s financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). The preparation thereof 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.

Related Party Transactions

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

Revenue Recognition

The majority of our sales are derived from long-term contracts with the U.S. Government for the production of goods, the provision of services, or in some cases, a combination of both. In accounting for these contracts, we utilize either the cost-to-cost method or the units-of-delivery method of percentage-of-completion accounting, with cost-to-cost being the predominant method. Generally, sales under cost-reimbursement contracts and construction-type contracts that provide for deliveries at lower volume rates per year or a small number of units are accounted for using the cost-to-cost method. Under this method, sales, including estimated profits, are recorded as costs are incurred. Generally, sales under contracts that provide for deliveries at higher volume rates per year or a large number of units are accounted for using the units-of-delivery method. Under this method, cost and sales are recognized as units are delivered to the customer. The company estimates profit on contracts as the difference between total estimated sales and total estimated cost at completion and recognizes that profit either as costs are incurred (cost-to-cost) or as units are delivered (units-of-delivery). The company classifies sales as product or service depending upon the predominant attributes of the contract.

Contract sales may include estimated amounts not contractually agreed to by the customer, including cost or performance incentives (such as award and incentive fees), un-priced change orders, claims and requests for equitable adjustment (REAs). Further, as contracts are performed, change orders can be a regular occurrence and may be un-priced until negotiated with the customer. Un-priced change orders are included in estimated contract sales when management believes it is probable they will be recovered through a change in contract price. Amounts representing claims (including change orders unapproved as to both scope and price) and REAs are included in estimated contract sales when management believes it is probable the claim and/or REA will result in additional contract revenue and the amount can be reliably estimated based on the facts and circumstances known to us at the time. As of December 31, 2015, the company has initiated REAs with the U.S. government and an international customer seeking recovery of approximately \$300 million under contracts related to two Aerospace Systems programs. A substantial portion of the REAs was initiated during the fourth quarter of 2015. The REAs relate to what we believe is work performed by the company at the direction of our customers that is beyond the scope of the related contracts as well as costs incurred by the company as a result of customer-caused delays and disruption. The total amount of additional contract sales we have assumed as of December 31, 2015 is approximately \$225 million.

NORTHROP GRUMMAN CORPORATION

We are currently negotiating the REAs and the terms of the contracts with our customers. Recognized amounts related to claims and REAs as of December 31, 2014 were not material individually or in aggregate.

The company's U.S. Government contracts generally contain provisions that enable the customer to terminate a contract for default, or for the convenience of the government. If a contract is terminated for default, we may not be entitled to recover any of our costs on partially completed work and may be liable to the government for re-procurement costs of acquiring similar products or services from another contractor, and for certain other damages. Termination of a contract for the convenience of the government may occur when the government concludes it is in the best interests of the government that the contract be terminated. Under a termination for convenience, the contractor is typically entitled to be paid in accordance with the contract's terms for costs incurred prior to the effective date of termination, plus a reasonable profit and settlement expenses. At December 31, 2015, the company did not have any contract terminations in process that we anticipate would have a material effect on our consolidated financial position, annual results of operations and/or cash flows.

Net Estimate-At-Completion (EAC) Adjustments - We recognize changes in estimated contract sales, costs or profits using the cumulative catch-up method of accounting. This method recognizes, in the current period, the cumulative effect of the changes on current and prior periods as net EAC adjustments; sales and profit in future periods of contract performance are recognized as if the revised estimates had been used since contract inception. If it is determined that a loss will result from the performance of a contract, the entire amount of the estimable future loss is charged against income in the period the loss is identified. Loss provisions are first offset against any costs that are included in unbilled accounts receivable or inventoried costs, and any remaining amount is reflected in liabilities.

Significant EAC adjustments on a single contract could have a material effect on the company's consolidated financial position or annual results of operations. Where such adjustments occur, we generally disclose the nature, underlying conditions and financial impact of the adjustments. No discrete event or adjustments to an individual contract were material to the accompanying consolidated statements of earnings and comprehensive income (loss) for each of the three years ended December 31, 2015, 2014, and 2013.

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

<i>\$ in millions, except per share data</i>	Year Ended December 31		
	2015	2014	2013
Operating Income	\$ 580	\$ 664	\$ 753
Net Earnings ⁽¹⁾	377	432	489
Diluted earnings per share ⁽¹⁾	1.97	2.04	2.09

⁽¹⁾ Based on statutory tax rates

Sales by Customer Category - The following table presents sales by customer category:

<i>\$ in millions</i>	Year Ended December 31					
	2015		2014		2013	
	\$	% ⁽¹⁾	\$	% ⁽¹⁾	\$	% ⁽¹⁾
U.S. Government ⁽²⁾	\$ 19,458	83%	\$ 20,085	84%	\$ 21,278	86%
International ⁽³⁾	3,339	14%	3,045	13%	2,493	10%
Other Customers ⁽⁴⁾	729	3%	849	3%	890	4%
Total Sales	\$ 23,526		\$ 23,979		\$ 24,661	

⁽¹⁾ Percentage of total sales.

⁽²⁾ Sales to the U.S. Government include sales from contracts for which Northrop Grumman is the prime contractor, as well as those for which the company is a subcontractor and the ultimate customer is the U.S. Government. Each of the company's segments derives substantial revenue from the U.S. Government.

⁽³⁾ International sales include foreign military sales contracted through the U.S. Government, direct commercial sales with governments outside the U.S. and commercial sales outside the U.S.

⁽⁴⁾ Sales to Other Customers include sales to U.S. state and local governments and U.S. commercial customers.

General and Administrative Expenses

In accordance with industry practice and the regulations that govern cost accounting requirements for government contracts, most general management and corporate expenses incurred at the segment and corporate locations are considered allowable and allocable costs. Allowable and allocable general and administrative costs, including independent research and development (IR&D) and certain 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, including any provision for loss contracts.

Research and Development

Company-sponsored research and development activities primarily include IR&D efforts related to government programs. Company-sponsored IR&D expenses totaled \$712 million, \$569 million and \$507 million in 2015, 2014 and 2013, respectively. Customer-funded research and development activities are charged directly to the related contracts.

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 established and no amount within the range is more probable 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, taking into account the financial viability of other liable parties. As a portion of environmental remediation costs is expected to be recoverable through overhead charges on government contracts, such amounts are deferred in inventoried costs (current portion) and other non-current assets. The portion of environmental costs not expected to be recoverable is expensed.

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.

Marketable securities accounted for as trading and available-for-sale are recorded at fair value on a recurring basis. For available-for-sale securities, changes in unrealized gains and losses are reported as a component of other comprehensive income. Changes in unrealized gains and losses on trading securities are included in other, net in the consolidated statements of earnings and comprehensive income (loss). 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 net earnings, while the effective portion of the 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 settlement. 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 (loss).

The company may use derivative financial instruments to manage its exposure to interest rate risk for its long-term fixed-rate debt portfolio and foreign currency exchange risk related to receipts from customers and payments to suppliers denominated in foreign currencies. 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.

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 recognized as a component of income tax expense.

In accordance with industry practice and regulations that govern the cost accounting requirements for government contracts, current state and local income and franchise taxes are generally considered allowable and allocable costs and are therefore recorded in operating costs and expenses. The company 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, which have not been reflected in measuring income tax expense for financial reporting purposes. Until these positions are sustained by the taxing authorities or the statute of limitations concerning such issues lapses, the company does not 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. The company does not invest in high yield or high risk securities. Cash in bank accounts at times may exceed federally insured limits.

Accounts Receivable and Inventoried Costs

Accounts receivable include amounts billed and currently due from customers, as well as amounts currently due but unbilled (primarily related to costs incurred on contracts accounted for under the cost-to-cost method of percentage-of-completion accounting). Accounts receivable also include certain estimated contract change amounts, claims or REAs in negotiation that are probable of recovery and amounts retained by the customer pending contract completion.

Inventoried costs primarily relate to work in process on contracts accounted for under the units-of-delivery method of percentage-of-completion accounting. These costs represent accumulated contract costs less the portion of such costs allocated to delivered items. Product inventory primarily consists of raw materials and is stated at the lower of cost or market, generally using the average cost method.

Accumulated contract costs in unbilled accounts receivable and inventoried costs include direct production costs, factory and engineering overhead, production tooling costs, and, for government contracts, allowable general and administrative expenses. According to the provisions of U.S. Government contracts, the customer asserts title to, or a security interest in, inventories related to such contracts as a result of contract advances, performance-based payments, and progress payments. In accordance with industry practice, unbilled accounts receivable and inventoried costs are classified as current assets and include amounts related to contracts having production cycles longer than one year. Payments received in excess of inventoried costs and unbilled accounts receivable amounts on a contract by contract basis are recorded as advance payments and amounts in excess of costs incurred in the consolidated statements of financial position.

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Property, Plant and Equipment

Property, plant and equipment are depreciated over the estimated useful lives of individual assets. Most of these assets are depreciated using declining-balance methods, with the remainder using the straight-line method. Major classes of property, plant and equipment and their useful lives are as follows:

<i>Useful life in years, \$ in millions</i>	Useful Life	December 31	
		2015	2014
Land and land improvements	Up to 40 ⁽¹⁾	\$ 381	\$ 373
Buildings and improvements	Up to 45	1,618	1,589
Machinery and other equipment	Up to 20	4,610	4,401
Capitalized software costs	3-5	406	428
Leasehold improvements	Length of Lease ⁽²⁾	898	811
Property, plant and equipment, at cost		7,913	7,602
Accumulated depreciation		(4,849)	(4,611)
Property, plant and equipment, net		\$ 3,064	\$ 2,991

⁽¹⁾ Land is not a depreciable asset.

⁽²⁾ Leasehold improvements are depreciated over the shorter of the useful life of the asset or the length of the lease.

Leases

The company uses its incremental borrowing rate in the assessment of lease classification as capital or operating and defines the initial lease term to include renewal options determined to be reasonably assured. The majority of our leases are operating leases.

Many of the company's real property lease agreements contain incentives for tenant improvements, rent holidays, or rent escalation clauses. For tenant improvement incentives, the company records a deferred rent liability and amortizes the deferred rent over the term of the lease as a reduction to rent expense. For rent holidays and rent escalation clauses during the lease term, the company records rental expenses on a straight-line basis over the term of the lease. For purposes of recognizing 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 of intended use.

Goodwill and Other Purchased Intangible Assets

The company tests for impairment of goodwill annually as of December 31, or when we believe a potential impairment exists. When performing the goodwill impairment test, the company uses a discounted cash flow approach corroborated by comparative market multiples, where appropriate, to determine the fair value of its reporting units.

Goodwill and other purchased intangible asset balances are included in the identifiable assets of their assigned business segment. The company charges goodwill impairment, as well as the amortization of other purchased intangible assets, against the respective segment's operating income. Purchased intangible assets are amortized on a straight-line basis over their estimated useful lives.

Cash Surrender Value of Life Insurance Policies

The company maintains whole life insurance policies on a group of executives, which are recorded at their cash surrender value as determined by the insurance carrier. The company also has split-dollar life insurance policies on former officers and executives from acquired businesses, which 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, 2015 and 2014, the carrying values associated with these policies were \$284 million and \$290 million, respectively, and are recorded in other non-current assets in the consolidated statements of financial position.

Litigation, Commitments and Contingencies

Amounts associated with litigation, commitments and contingencies are recorded as reserves 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 established and no amount within the range is more likely than another, the low

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end of the range is recorded. Legal fees are expensed as incurred. Due to the inherent uncertainties surrounding gain contingencies, we generally do not recognize potential gains until realized.

Retirement Benefits

The company sponsors various defined benefit pension plans and defined contribution retirement plans covering substantially all of its employees. In most cases, our defined contribution plans provide for up to a 50 percent match of employee contributions up to eight percent of compensation. The company also provides post-retirement benefits other than pensions, consisting principally of health care and life insurance benefits, to eligible retirees and qualifying dependents.

The liabilities, unamortized benefit plan costs and annual income or expense of the company's defined benefit pension and other post-retirement benefit plans are determined using methodologies that involve several actuarial assumptions. Unamortized benefit plan costs consist primarily of accumulated net after-tax actuarial losses.

Because U.S. Government regulations require that the costs of pension and other post-retirement plans be charged to our contracts in accordance with the Federal Acquisition Regulation (FAR) and the related U.S. Government Cost Accounting Standards (CAS) that govern such plans, we calculate retiree benefit plan costs under both CAS and FAS (GAAP Financial Accounting Standards) 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 includes different assumptions and models, such as in estimating earnings on plan assets and calculating interest expense. In addition, the periods over which gains/losses related to pension assets and actuarial changes are amortized are different under FAS and CAS. As a result, annual retiree benefit plan expense amounts for FAS are different from the amounts for CAS even though the ultimate cost of providing benefits over the life of the plans is the same under either method. CAS retiree benefit plan costs are charged to contracts and are included in segment operating income, and the difference between CAS and FAS expense is recorded in operating income at the consolidated company level.

Net actuarial gains or losses are amortized to expense on a plan-by-plan basis when they exceed the accounting corridor. The accounting corridor is a defined range within which amortization of net gains and losses is not required and is equal to 10 percent of the greater of plan assets or benefit obligations. Gains or losses outside of the corridor are subject to amortization over our average employee future service period of approximately nine years. 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 a reporting period. The company's funding policy for the qualified pension plans is to contribute, at a minimum, the statutorily required amount to an irrevocable trust.

Stock Compensation

The company's stock compensation plans are classified as equity plans and compensation expense is generally recognized over the vesting period (typically three years), net of estimated forfeitures. The company issues stock awards in the form of restricted performance stock rights and restricted stock rights under its existing plans. The fair value of stock awards is determined based on the closing market price of the company's common stock on the grant date. At each reporting date, the number of shares is adjusted to equal the number ultimately expected to vest.

Accounting Standards Updates

On May 28, 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU)No. 2014-09, *Revenue from Contracts with Customers*. ASU 2014-09 supersedes existing revenue recognition guidance, including Accounting Standards Codification No. 605-35, *Revenue Recognition - Construction-Type and Production-Type Contracts*. ASU 2014-09 outlines a single set of comprehensive principles for recognizing revenue under U.S. GAAP. Among other things, it requires companies to identify contractual performance obligations and determine whether revenue should be recognized at a point in time or over time. These concepts, as well as other aspects of ASU 2014-09, may change the method and/or timing of revenue recognition for certain of our contracts. On July 9, 2015, the FASB approved a one year deferral of the effective date of ASU 2014-09 to annual reporting periods beginning after December 15, 2017. ASU 2014-09 may be applied either retrospectively or through the use of a modified-retrospective method. We are currently evaluating both methods of adoption as well as the effect ASU 2014-09 will have on the company's consolidated financial position, annual results of operations and cash flows.

On November 20, 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes*. ASU 2015-17 simplifies the presentation of deferred income taxes and requires that deferred tax assets and liabilities, as well as any related valuation allowance, be classified as noncurrent in a classified statement of financial position. The company adopted ASU 2015-17 during the fourth quarter of 2015 and applied it retrospectively to all periods presented.

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Other accounting standards updates effective after December 31, 2015, are not expected to have a material effect on the company's consolidated financial position, annual results of operations and/or cash flows.

Reclassifications

As a result of the company's adoption of ASU 2015-17, we now present deferred tax assets and liabilities as non-current. This change resulted in a reclassification of \$404 million of net current deferred tax assets reported in our 2014 consolidated statement of financial position to non-current deferred tax assets. This reclassification reduced our current assets as of December 31, 2014, but had no impact on total assets.

Shareholders' Equity

The company records the difference between the cost of shares repurchased and their par value as well as tax withholding in excess of related stock compensation expense as a reduction of paid-in capital to the extent available and then as a reduction of retained earnings.

Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss are as follows:

<i>\$ in millions</i>	December 31	
	2015	2014
Unamortized benefit plan costs, net of tax benefit of \$3,350 in 2015 and \$3,395 in 2014	\$ (5,241)	\$ (5,316)
Cumulative translation adjustment	(82)	(41)
Net unrealized gain on marketable securities and cash flow hedges, net of tax	3	1
Total accumulated other comprehensive loss	\$ (5,320)	\$ (5,356)

Unamortized benefit plan costs consist primarily of net after-tax actuarial losses totaling \$5.5 billion and \$5.6 billion as of December 31, 2015 and 2014, respectively. Net actuarial gains or losses are re-determined annually or upon remeasurement events and principally arise from changes in the interest rate used to discount our benefit obligations and differences between expected and actual returns on plan assets.

Reclassifications from accumulated other comprehensive income to net earnings related to the amortization of benefit plan costs were \$388 million, \$145 million and \$319 million, net of taxes, for the years ended December 31, 2015, 2014 and 2013, respectively. The reclassifications represent the amortization of net actuarial losses and prior service credits for the company's retirement benefit plans, and are included in the computation of net periodic pension cost (see Note 12 for further information).

Reclassifications from accumulated other comprehensive income to net earnings, relating to cumulative translation adjustments, marketable securities and effective cash flow hedges for the years ended December 31, 2015, 2014 and 2013, respectively, were not material. Reclassifications for cumulative translation adjustments and marketable securities are recorded in other income, and reclassifications for effective cash flow hedges are recorded in operating income.

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 includes the dilutive effect of awards granted to employees under stock-based compensation plans. The dilutive effect of these securities totaled 2.2 million, 3.3 million and 4.3 million shares for the years ended December 31, 2015, 2014 and 2013, respectively. We had no anti-dilutive stock options outstanding for the years ended December 31, 2015, 2014 and 2013, respectively.

Share Repurchases

On May 15, 2013, the company's board of directors authorized a share repurchase program of up to \$4.0 billion of the company's common stock (2013 Repurchase Program). Repurchases under the 2013 Repurchase Program commenced in September 2013 and were completed in March 2015.

On December 4, 2014, the company's board of directors authorized a new share repurchase program of up to \$3.0 billion of the company's common stock (2014 Repurchase Program). Repurchases under the 2014 Repurchase Program commenced in March 2015 upon the completion of the company's 2013 Repurchase Program. As of

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December 31, 2015, repurchases under the 2014 Repurchase Program totaled \$2.7 billion; \$0.3 billion remained under this share repurchase authorization. By its terms, the 2014 Repurchase Program is set to expire when we have used all authorized funds for repurchases.

On September 16, 2015, the company's board of directors authorized a new share repurchase program of up to \$4.0 billion of the company's common stock (2015 Repurchase Program). By its terms, repurchases under the 2015 Repurchase Program are set to commence upon completion of the 2014 Repurchase Program and to expire when we have used all authorized funds for repurchases.

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

The table below summarizes the company's share repurchases:

Repurchase Program Authorization Date	Amount Authorized (in millions)	Total Shares Retired (in millions)	Average Price Per Share ⁽¹⁾	Date Completed	Shares Repurchased (in millions)		
					Year Ended December 31		
					2015	2014	2013
June 16, 2010	\$ 5,350	83.7	\$ 63.86	September 2013	—	—	18.6
May 15, 2013	\$ 4,000	32.8	\$ 121.97	March 2015	2.7	21.4	8.7
December 4, 2014	\$ 3,000	16.6	\$ 164.72		16.6	—	—
September 16, 2015	\$ 4,000	—	\$ —		—	—	—
					19.3	21.4	27.3

⁽¹⁾ Includes commissions paid.

Dividends on Common Stock

In May 2015, the company increased the quarterly common stock dividend 14 percent to \$0.80 per share from the previous amount of \$0.70 per share.

In May 2014, the company increased the quarterly common stock dividend 15 percent to \$0.70 per share from the previous amount of \$0.61 per share.

In May 2013, the company increased the quarterly common stock dividend 11 percent to \$0.61 per share from the previous amount of \$0.55 per share.

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3. SEGMENT INFORMATION

At December 31, 2015, the company was aligned into four segments: Aerospace Systems, Electronic Systems, Information Systems and Technical Services. The following table presents sales and operating income by segment:

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Sales			
Aerospace Systems	\$ 10,004	\$ 9,997	\$ 10,014
Electronic Systems	6,842	6,951	7,149
Information Systems	5,894	6,222	6,596
Technical Services	2,838	2,799	2,843
Intersegment eliminations	(2,052)	(1,990)	(1,941)
Total sales	23,526	23,979	24,661
Operating income			
Aerospace Systems	1,220	1,315	1,215
Electronic Systems	1,068	1,148	1,226
Information Systems	616	611	633
Technical Services	254	261	262
Intersegment eliminations	(238)	(236)	(256)
Total segment operating income	2,920	3,099	3,080
Reconciliation to operating income:			
Net FAS/CAS pension adjustment	348	269	168
Unallocated corporate expenses	(190)	(169)	(119)
Other	(2)	(3)	(6)
Total operating income	\$ 3,076	\$ 3,196	\$ 3,123

Net FAS/CAS Pension Adjustment

For financial statement purposes, we account for our employee pension plans in accordance with GAAP under FAS. However, the cost of these plans is charged to our contracts in accordance with the FAR and the related CAS that govern such plans. The net FAS/CAS pension adjustment reflects the difference between CAS pension expense included as cost in segment operating income and FAS pension expense determined in accordance with GAAP.

2015 - The increase in net FAS/CAS pension adjustment is principally due to higher 2015 CAS expense resulting from changes in mortality assumptions and demographic experience, partially offset by an increase in 2015 FAS expense as a result of changes in our FAS discount rate and mortality assumptions as of December 31, 2014.

2014 - The increase in net FAS/CAS pension adjustment is principally due to a reduction in FAS expense, largely due to the increase in our FAS discount rate assumptions as of December 31, 2013. The reduction in FAS expense was partially offset by lower CAS expense due to the passage of the Highway and Transportation Funding Act of 2014 (HATFA), which included provisions that reduce the amount of CAS expense charged to our contracts.

Unallocated Corporate Expenses

Unallocated corporate expenses include the portion of corporate expenses not considered allowable or allocable under applicable CAS or the FAR, and are therefore not allocated to the segments. Such costs consist of a portion of management and administration, legal, environmental, compensation costs, retiree benefits and certain unallowable costs such as lobbying activities, among others.

2015 - The increase in unallocated corporate expenses for 2015, as compared to 2014, is principally due to a \$21 million increase in unallocated state income taxes due in part to a change in accounting methods approved by the Internal Revenue Service (IRS) during the fourth quarter of 2015.

2014 - The increase in unallocated corporate expenses for 2014, as compared to 2013, is primarily due to increases in year-over-year provisions for environmental matters.

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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 operating margin rate for external sales. Such intercompany operating income is eliminated in consolidation.

The following table presents intersegment sales and operating income before eliminations:

<i>\$ in millions</i>	Year Ended December 31					
	2015		2014		2013	
	Sales	Operating Income	Sales	Operating Income	Sales	Operating Income
Intersegment sales and operating income						
Aerospace Systems	\$ 232	\$ 28	\$ 176	\$ 22	\$ 149	\$ 18
Electronic Systems	544	88	637	109	629	125
Information Systems	592	60	537	57	504	63
Technical Services	684	62	640	48	659	50
Total	\$ 2,052	\$ 238	\$ 1,990	\$ 236	\$ 1,941	\$ 256

Assets

Substantially all of the company's operating assets are located in the U.S. The following table presents assets by segment:

<i>\$ in millions</i>	December 31	
	2015	2014
Assets		
Aerospace Systems	\$ 7,061	\$ 6,844
Electronic Systems	4,394	4,366
Information Systems	6,588	6,725
Technical Services	1,528	1,539
Segment assets	19,571	19,474
Corporate assets ⁽¹⁾	4,883	7,098
Total assets	\$ 24,454	\$ 26,572

⁽¹⁾ Corporate assets principally consist of cash and cash equivalents and deferred tax assets.

Capital Expenditures and Depreciation and Amortization

The following table presents capital expenditures and depreciation and amortization by segment:

<i>\$ in millions</i>	Capital Expenditures			Depreciation and Amortization ⁽¹⁾		
	2015	2014	2013	2015	2014	2013
Aerospace Systems	\$ 240	\$ 387	\$ 198	\$ 213	\$ 206	\$ 210
Electronic Systems	111	82	76	120	119	134
Information Systems	28	40	27	65	70	81
Technical Services	2	1	3	6	7	4
Corporate	90	51	60	63	60	66
Total	\$ 471	\$ 561	\$ 364	\$ 467	\$ 462	\$ 495

⁽¹⁾ Depreciation and amortization expense includes amortization of purchased intangible assets, as well as amortization of deferred and other outsourcing costs.

4. ACCOUNTS RECEIVABLE, NET

Unbilled amounts represent sales for which billings have not been presented to customers by period-end. These amounts are usually billed and collected within one year. Substantially all accounts receivable at December 31, 2015 are expected to be collected in 2016. The company does not believe it has significant exposure to credit risk, as accounts receivable and the related unbilled amounts are primarily from contracts where the U.S. Government is the primary customer.

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Accounts receivable consisted of the following:

<i>\$ in millions</i>	December 31	
	2015	2014
Due from U.S. Government		
Billed	\$ 506	\$ 536
Unbilled	7,699	6,806
Progress and performance-based payments received	(6,140)	(5,150)
	2,065	2,192
Due from International and Other Customers⁽¹⁾		
Billed	223	283
Unbilled	3,713	3,461
Progress and performance-based payments received	(3,101)	(3,062)
	835	682
Total accounts receivable	2,900	2,874
Allowance for doubtful accounts	(59)	(68)
Total accounts receivable, net	\$ 2,841	\$ 2,806

⁽¹⁾ Includes receivables due from the U.S. Government associated with foreign military sales.

5. INVENTORIED COSTS, NET

Inventoried costs consisted of the following:

<i>\$ in millions</i>	December 31	
	2015	2014
Production costs of contracts in process	\$ 1,218	\$ 1,257
General and administrative expenses	293	252
	1,511	1,509
Progress and performance-based payments received	(807)	(873)
	704	636
Product inventory	103	106
Total inventoried costs, net	\$ 807	\$ 742

6. INCOME TAXES

Federal and foreign income tax expense consisted of the following:

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Federal income tax expense:			
Current	\$ 310	\$ 701	\$ 803
Deferred	472	155	84
Total federal income tax expense	782	856	887
Foreign income tax expense:			
Current	21	10	28
Deferred	(3)	2	(4)
Total foreign income tax expense	18	12	24
Total federal and foreign income tax expense	\$ 800	\$ 868	\$ 911

Earnings from foreign operations before income taxes are not material for all periods presented.

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

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Income tax expense at statutory rate	\$ 976	\$ 1,028	\$ 1,002
Research tax credit	(119)	(43)	(37)
Manufacturing deduction	(31)	(48)	(63)
Settlements with taxing authorities	—	(51)	—
Other, net	(26)	(18)	9
Total federal and foreign income taxes	\$ 800	\$ 868	\$ 911

2015 – The effective tax rate for 2015 was 28.7 percent, as compared with 29.6 percent in 2014. This reduction was driven by a \$76 million increase in research credits primarily resulting from additional credits claimed on our prior year tax returns, partially offset by a \$51 million benefit recorded in 2014 for the partial resolution of the IRS examination of our 2007-2009 tax returns.

2014 – The effective tax rate for 2014 was 29.6 percent, as compared with 31.8 percent in 2013. The decline in the company's lower effective tax rate for 2014 reflects a \$51 million benefit for the partial resolution of our 2007-2009 IRS examination.

Income tax payments, net of refunds received, were \$118 million, \$727 million and \$880 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Uncertain Tax Positions

The company files income tax returns in the U.S. federal jurisdiction and in various state and foreign jurisdictions. The company's 2007-2013 tax returns are currently either under IRS examination or appeals. In the first quarter of 2014, the U.S. Congressional Joint Committee on Taxation approved a partial resolution of the IRS examination of the company's 2007-2009 tax returns. As a result, the company recorded a reduction of income tax expense of \$51 million. The company also reduced its unrecognized tax benefits by \$59 million and related accrued interest by \$12 million. During 2014, the company filed appeals with the IRS for the unresolved 2007-2009 tax return matters and for unresolved 2010-2011 examination matters.

The company believes it is reasonably possible that within the next twelve months, we may resolve certain matters on the years under examination or appeals, resulting in a reduction of our unrecognized tax benefits up to \$175 million and a reduction of our income tax expense up to \$45 million.

Open tax years related to state and foreign jurisdictions remain subject to examination, but are not considered material.

The change in unrecognized tax benefits during 2015, 2014 and 2013, excluding interest, is as follows:

<i>\$ in millions</i>	December 31		
	2015	2014	2013
Unrecognized tax benefits at beginning of the year	\$ 210	\$ 241	\$ 156
Additions based on tax positions related to the current year	52	62	56
Additions for tax positions of prior years	17	9	44
Settlements with taxing authorities	(10)	(61)	(1)
Other, net	(46)	(41)	(14)
Net change in unrecognized tax benefits	13	(31)	85
Unrecognized tax benefits at end of the year	\$ 223	\$ 210	\$ 241

These liabilities, along with \$23 million of accrued interest and penalties, are included in other current and non-current liabilities in the consolidated statements of financial position. If the income tax benefits from these tax positions are ultimately realized, \$173 million of federal and foreign tax benefits would reduce the company's effective tax rate.

Net interest expense within the company's federal, foreign and state income tax provisions was not material for all years presented.

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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 significant 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	
	2015	2014
Deferred Tax Assets		
Retiree benefits	\$ 2,549	\$ 2,745
Accrued employee compensation	316	311
Provisions for accrued liabilities	347	392
Inventory	227	—
Stock-based compensation	76	91
Other	68	104
Gross deferred tax assets	3,583	3,643
Less valuation allowance	(34)	(53)
Net deferred tax assets	3,549	3,590
Deferred Tax Liabilities		
Goodwill	788	787
Property, plant and equipment, net	297	315
Contract accounting differences	976	332
Other	79	130
Deferred tax liabilities	2,140	1,564
Total net deferred tax assets	\$ 1,409	\$ 2,026

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 all deferred tax assets will be realized, net of valuation allowances currently established.

At December 31, 2015, the company has available unused net operating losses of \$198 million that may be applied against future taxable income, primarily in the United Kingdom, that may be used indefinitely. A valuation allowance of \$34 million has been recorded against certain deferred tax assets due to the uncertainty of the realization of these net operating losses and other deferred tax assets, principally in foreign jurisdictions.

Undistributed Foreign Earnings

As of December 31, 2015, the company has accumulated undistributed earnings generated by its foreign subsidiaries of approximately \$560 million. No deferred tax liability has been recorded on these earnings since the company intends to permanently reinvest these earnings and expects future U.S. cash generation will be sufficient to meet future U.S. cash needs. Should these earnings be distributed in the form of dividends or otherwise, the distributions would result in tax of approximately \$45 million, representing U.S. federal income tax, less foreign tax credits available to offset such distributions.

7. GOODWILL AND OTHER PURCHASED INTANGIBLE ASSETS

Goodwill

Goodwill and other purchased intangible assets are included in the identifiable assets of the segment to which the operations of the acquired entity have been assigned. Accumulated goodwill impairment losses at December 31, 2015 and 2014, totaled \$570 million at the Aerospace Systems segment.

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Changes in the carrying amounts of goodwill for the years ended December 31, 2015 and 2014, were as follows:

<i>\$ in millions</i>	Aerospace Systems	Electronic Systems	Information Systems	Technical Services	Total
Balance as of December 31, 2013	\$ 3,758	\$ 2,410	\$ 5,294	\$ 976	\$ 12,438
Businesses acquired and other ⁽¹⁾	—	—	(8)	36	28
Balance as of December 31, 2014	\$ 3,758	\$ 2,410	\$ 5,286	\$ 1,012	\$ 12,466
Businesses acquired and other ⁽¹⁾	—	—	(2)	(4)	(6)
Balance as of December 31, 2015	\$ 3,758	\$ 2,410	\$ 5,284	\$ 1,008	\$ 12,460

⁽¹⁾ Other consists primarily of adjustments for foreign currency translation.

Purchased Intangible Assets

Net contract, program, and other intangible assets comprise the following:

<i>\$ in millions</i>	December 31	
	2015	2014
Gross contract, program and other intangible assets	\$ 1,828	\$ 1,831
Less accumulated amortization	(1,751)	(1,730)
Net contract, program and other intangible assets	\$ 77	\$ 101

Amortization expense for 2015, 2014 and 2013, was \$22 million, \$22 million and \$26 million, respectively. The company's purchased intangible assets are being amortized on a straight-line basis over an aggregate weighted-average period of 21 years and are included in other non-current assets in the consolidated statements of financial position. As of December 31, 2015, the expected future amortization of purchased intangibles for each of the next five years is as follows:

<i>\$ in millions</i>	
Year Ending December 31	
2016	\$ 16
2017	14
2018	12
2019	10
2020	6

8. FAIR VALUE OF FINANCIAL INSTRUMENTS

The following table presents comparative carrying value and fair value information for our financial assets and liabilities:

<i>\$ in millions</i>	December 31, 2015		December 31, 2014	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Financial Assets (Liabilities)				
Marketable securities				
Trading	\$ 303	\$ 303	\$ 331	\$ 331
Available-for-sale	7	7	5	5
Derivatives	5	5	1	1
Long-term debt, including current portion	(6,526)	(6,907)	(5,928)	(6,726)

There were no transfers of financial instruments between the three levels of the fair value hierarchy during the years ended December 31, 2015 and 2014.

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

Investments in Marketable Securities

The company holds a portfolio of marketable securities consisting of securities that are classified as either trading or available-for-sale to partially fund non-qualified employee benefit plans. These assets are recorded at fair value on a recurring basis and substantially all of these instruments are valued using Level 1 inputs, with an immaterial amount valued using Level 2 inputs. As of December 31, 2015 and 2014, marketable securities of \$310 million and \$336 million, respectively, were included in other non-current assets in the consolidated statements of financial position.

Derivative Financial Instruments and Hedging Activities

The company's derivative portfolio consists primarily of foreign currency forward contracts. The notional value of the company's derivative portfolio at December 31, 2015 and 2014 was \$141 million and \$146 million, respectively. The portion of the notional value designated as cash flow hedges at December 31, 2015 and 2014, was \$10 million and \$34 million, respectively. Substantially all of these instruments are valued using Level 2 inputs. Where model-derived valuations are appropriate, the company utilizes the income approach to determine the fair value and uses the applicable London Interbank Offered Rate (LIBOR) swap rates. The derivative fair values and related unrealized gains/losses at December 31, 2015 and 2014, were not material.

Long-Term Debt

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

9. LONG-TERM DEBT

Credit Facility

In the third quarter of 2015, the Company amended its \$1.8 billion five-year credit facility dated August 29, 2013 by reducing the aggregate principal amount available under the facility to \$1.6 billion and extending the maturity to July 2020 (the "2015 Credit Agreement").

The 2015 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, 2015, the company was in compliance with all covenants under the Credit Agreement and there was no balance outstanding under this facility.

Unsecured Senior Notes

In February 2015, the company issued \$600 million of unsecured senior notes due April 15, 2045 with a fixed interest rate of 3.85 percent (the Notes). Interest on the Notes is payable semi-annually in arrears. The Notes are 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 the principal amount of the Notes or an applicable "make-whole" amount, plus accrued and unpaid interest. We are using the net proceeds from this offering for general corporate purposes, including the funding of a \$500 million voluntary contribution to our pension plans in the first quarter of 2015 and a debt repayment due in 2016.

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Long-term debt consists of the following:

<i>\$ in millions</i>	Interest rate	December 31	
		2015	2014
Fixed-rate notes and debentures, maturing in			
2016	7.75%	\$ 107	\$ 107
2018	1.75% - 6.75%	1,050	1,050
2019	5.05%	500	500
2021	3.50%	700	700
2023	3.25%	1,050	1,050
2026	7.75% - 7.88%	527	527
2031	7.75%	466	466
2040	5.05%	300	300
2043	4.75%	950	950
2045	3.85%	600	—
Capital leases	Various	31	33
Other	Various	245	245
Total long-term debt		6,526	5,928
Less: current portion		110	3
Long-term debt, net of current portion		\$ 6,416	\$ 5,925

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, were \$291 million, \$281 million, and \$234 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Maturities of long-term debt as of December 31, 2015, are as follows:

<i>\$ in millions</i>	
Year Ending December 31	
2016	\$ 110
2017	3
2018	1,053
2019	504
2020	31
Thereafter	4,822
Total principal payments	6,523
Unamortized premium on long-term debt, net of discount	3
Total long-term debt	\$ 6,526

10. INVESTIGATIONS, CLAIMS AND LITIGATION

Litigation

On May 4, 2012, the company commenced an action, *Northrop Grumman Systems Corp. v. United States*, in the U.S. Court of Federal Claims. This lawsuit relates to an approximately \$875 million firm fixed price contract awarded to the company in 2007 by the U.S. Postal Service (USPS) for the construction and delivery of flats sequencing systems (FSS) as part of the postal automation program. The FSS have been delivered. The company's lawsuit is based on various theories of liability. The complaint seeks approximately \$63 million for unpaid portions of the contract price, and approximately \$115 million based on the company's assertions that, through various acts

and omissions over the life of the contract, the USPS adversely affected the cost and schedule of performance and materially altered the company's obligations under the contract. The United States responded to the company's complaint with an answer, denying most of the company's claims, and counterclaims seeking approximately \$410 million, less certain amounts outstanding under the contract. The principal counterclaim alleges that the company delayed its performance and caused damages to the USPS because USPS did not realize certain costs savings as early as it had expected. On April 2, 2013, the U.S. Department of Justice informed the company of a False Claims Act complaint relating to the FSS contract that was filed under seal by a relator in June 2011 in the U.S. District Court for the Eastern District of Virginia. On June 3, 2013, the United States filed a Notice informing the Court that the United States had decided not to intervene in this case. The relator alleged that the company violated the False Claims Act in a number of ways with respect to the FSS contract, alleged damage to the USPS in an amount of at least approximately \$179 million annually, alleged that he was improperly discharged in retaliation, and sought an unspecified partial refund of the contract purchase price, penalties, attorney's fees and other costs of suit. The relator later voluntarily dismissed his retaliation claim and reasserted it in a separate arbitration, which he also ultimately voluntarily dismissed. On September 5, 2014, the court granted the company's motion for summary judgment and ordered the relator's False Claims Act case be dismissed with prejudice. On December 19, 2014, the company filed a motion for partial summary judgment asking the court to dismiss the principal counterclaim referenced above. On June 29, 2015, the Court heard argument and denied that motion without prejudice to filing a later motion to dismiss. Although the ultimate outcome of these matters ("the FSS matters," collectively), including any possible loss, cannot be predicted or estimated at this time, the company intends vigorously to pursue and defend the FSS matters.

On August 8, 2013, the company received a court-appointed expert's report in litigation pending in the Second Federal Court of the Federal District in Brazil brought by the Brazilian Post and Telegraph Corporation (ECT), a Brazilian state-owned entity, against Solystic SAS (Solystic), a French subsidiary of the company, and two of its consortium partners. In this suit, commenced on December 17, 2004, and relatively inactive for some period of time, ECT alleges the consortium breached its contract with ECT and seeks damages of approximately R\$111 million (the equivalent of approximately \$28 million as of December 31, 2015), plus interest, inflation adjustments and attorneys' fees, as authorized by Brazilian law, which amounts could be significant over time. The original suit sought R\$89 million (the equivalent of approximately \$23 million as of December 31, 2015) in damages. In October 2013, ECT asserted an additional damage claim of R\$22 million (the equivalent of approximately \$6 million as of December 31, 2015). In its counterclaim, Solystic alleges ECT breached the contract by wrongfully refusing to accept the equipment Solystic had designed and built and seeks damages of approximately €31 million (the equivalent of approximately \$34 million as of December 31, 2015), plus interest, inflation adjustments and attorneys' fees, as authorized by Brazilian law. The Brazilian court retained an expert to consider certain issues pending before it. On August 8, 2013 and September 10, 2014, the company received reports from the expert, which contain some recommended findings relating to liability and the damages calculations put forth by ECT. Some of the expert's recommended findings were favorable to the company and others were favorable to ECT. In November 2014, the parties submitted comments on the expert's most recent report. On June 16, 2015, the court published a decision denying the parties' request to present oral testimony. At some future point, the court is expected to issue a decision on the parties' claims and counterclaims that could accept or reject, in whole or in part, the expert's recommended findings.

The company is one of several defendants in litigation brought by the Orange County Water District in Orange County Superior Court in California on December 17, 2004, for alleged contribution to volatile organic chemical contamination of the County's shallow groundwater. The lawsuit includes counts against the defendants for violation of the Orange County Water District Act, the California Super Fund Act, negligence, nuisance, trespass and declaratory relief. Among other things, the lawsuit seeks unspecified damages for the cost of remediation, payment of attorney fees and costs, and punitive damages. Trial on the statutory claims (those based on the Orange County Water District Act, the California Super Fund Act and declaratory relief) concluded on September 25, 2012. On October 29, 2013, the court issued its decision in favor of the defendants on the statutory claims. On May 9, 2014, the court granted defendants' dispositive motions on the remaining tort causes of action. Notice of entry of judgment was filed on July 1, 2014. The Orange County Water District filed a notice of appeal on August 28, 2014. The Orange County Water District filed its opening brief on October 14, 2015. The company is preparing its response.

The company is a party to various investigations, lawsuits, claims 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, and other than with respect to the FSS matters discussed separately above, the company does not believe that the outcome of any matter pending against the company is likely to have a material

adverse effect on the company's consolidated financial position as of December 31, 2015, or its annual results of operations or cash flows.

11. COMMITMENTS AND CONTINGENCIES

Guarantees of Subsidiary Performance Obligations

From time to time in the ordinary course of business, the company guarantees obligations of its subsidiaries under certain contracts. Generally, the company is liable under such an arrangement only if its subsidiary is unable to perform under its contract. Historically, the company has not incurred any substantial liabilities resulting from these guarantees.

In addition, the company's subsidiaries may enter into joint ventures, teaming and other business arrangements (collectively, Business Arrangements) to support our products and services in U.S. and international markets. The company generally strives to limit its exposure under these arrangements to its subsidiary's investment in the Business Arrangements or to the extent of such subsidiary's obligations under the applicable contract. In some cases, however, the company may be required to guarantee performance by the Business Arrangements and, in such cases, the company generally strives to obtain cross-indemnification from the other members of the Business Arrangements.

At December 31, 2015, the company is not aware of any existing event of default that would require it to satisfy any of these guarantees.

U.S. Government Cost Claims

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 the 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 matters raised by the U.S. Government. 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 estimable, and the outcome of any such matters would not have a material adverse effect on its consolidated financial position as of December 31, 2015, or its annual results of operations and/or cash flows.

Environmental Matters

The table below summarizes management's estimate of the range of reasonably possible future costs for environmental remediation, the amount accrued within that range, and the deferred costs expected to be recoverable through overhead charges on U.S. Government contracts as of December 31, 2015 and 2014:

<i>\$ in millions</i>	Range of Reasonably Possible Future Costs ⁽¹⁾	Accrued Costs ⁽²⁾	Deferred Costs ⁽³⁾
December 31, 2015	\$353 - \$812	\$ 370	\$ 186
December 31, 2014	363 - 809	381	193

⁽¹⁾ The range of reasonably possible future costs does not take into consideration amounts expected to be recoverable through overhead charges on U.S. Government contracts.

⁽²⁾ As of December 31, 2015, \$113 million is recorded in other current liabilities and \$257 million is recorded in other non-current liabilities.

⁽³⁾ As of December 31, 2015, \$57 million is deferred in inventoried costs and \$129 million is deferred in other non-current assets. These amounts are evaluated for recoverability on a routine basis.

Although management cannot predict whether new information gained as our environmental remediation projects progress, or as changes in facts and circumstances occur, will materially affect the estimated liability accrued, we do not anticipate 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, 2015, 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, 2015, there were \$235 million of stand-by letters of credit and guarantees, and \$151 million of surety bonds outstanding.

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Indemnifications

The company has retained 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, 2015, or its annual results of operations and/or cash flows.

Operating Leases

Rental expense for operating leases was \$302 million in 2015, \$304 million in 2014, and \$298 million in 2013. These amounts are net of immaterial amounts of sublease rental income. Minimum rental commitments under long-term non-cancelable operating leases as of December 31, 2015 are payable as follows:

\$ in millions

Year Ending December 31	
2016	\$ 251
2017	201
2018	135
2019	99
2020	61
Thereafter	92
Total minimum lease payments	\$ 839

Subsequent Event - Included in the amounts listed in the table above are annual rental expenses of approximately \$17 million for a facility currently under lease through December 31, 2021. On January 4, 2016, we exercised an option to purchase the facility for approximately \$150 million. The purchase is expected to close in the first quarter of 2016.

12. RETIREMENT BENEFITS

Plan Descriptions

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

Defined Contribution Plans – The company also sponsors 401(k) defined contribution plans in which most employees are eligible to participate, including certain employees covered under collective bargaining agreements. Company contributions for most plans are based on employer matching of up to 50 percent of employee contributions up to eight percent of compensation. In addition to the 401(k) defined contribution benefit, certain employees hired after June 30, 2008, are eligible to participate in a defined contribution program in lieu of a defined benefit pension plan. The company's contributions to these defined contribution plans for the years ended December 31, 2015, 2014 and 2013, were \$291 million, \$282 million and \$285 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 that are separate from the company.

Medical and Life Benefits – The company provides a portion of the costs for certain health care and life insurance benefits for a substantial number of its active and retired employees. Certain covered employees achieve eligibility to participate in these plans upon retirement from active service if they meet specified age and years of service requirements. Qualifying dependents are also eligible for plan benefits in certain circumstances. The company reserves the right to amend or terminate the plans at any time. The company has capped the amount of its contributions to substantially all of its remaining post retirement medical and life benefit plans.

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

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carve-out. Subsequent to January 1, 2005 (or earlier at some segments), newly hired employees are not eligible for subsidized post retirement medical and life benefits.

In the first quarter of 2014, we communicated an amendment to most of our Medicare-eligible retirees, that beginning in the third quarter of 2014, in lieu of the benefits previously provided under the plans, the company will provide subsidies to reimburse retirees for a portion of the cost of individual Medicare-supplemental coverage purchased directly by the retiree through a private insurance exchange. The amendment did not affect Pre-Medicare retirees. We expect that the cost of retiree medical coverage in 2016 will be comparable to 2015.

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		
	2015	2014	2013	2015	2014	2013
Components of net periodic benefit cost						
Service cost	\$ 484	\$ 457	\$ 516	\$ 35	\$ 34	\$ 36
Interest cost	1,224	1,260	1,117	94	99	96
Expected return on plan assets	(1,975)	(1,871)	(1,809)	(89)	(83)	(75)
Amortization of:						
Prior service credit	(60)	(59)	(58)	(28)	(45)	(51)
Net loss from previous years	682	327	608	27	13	30
Other	—	1	—	—	—	—
Net periodic benefit cost	\$ 355	\$ 115	\$ 374	\$ 39	\$ 18	\$ 36

The table below summarizes the components of changes in unamortized benefit plan costs for the years ended December 31, 2015, 2014 and 2013:

<i>\$ in millions</i>	Pension Benefits	Medical and Life Benefits	Total
Changes in unamortized benefit plan costs			
Change in net actuarial loss	\$ (2,158)	\$ (280)	\$ (2,438)
Amortization of:			
Prior service credit	58	51	109
Net loss from previous years	(608)	(30)	(638)
Tax expense related to above items	1,075	102	1,177
Change in unamortized benefit plan costs – 2013	(1,633)	(157)	(1,790)
Change in net actuarial loss	3,833	234	4,067
Change in prior service cost	—	(92)	(92)
Amortization of:			
Prior service credit	59	45	104
Net loss from previous years	(327)	(13)	(340)
Tax benefit related to above items	(1,357)	(66)	(1,423)
Change in unamortized benefit plan costs – 2014	2,208	108	2,316
Change in net actuarial loss	626	(125)	501
Change in prior service cost	—	—	—
Amortization of:			
Prior service credit	60	28	88
Net loss from previous years	(682)	(27)	(709)
Tax (benefit) expense related to above items	(1)	46	45
Change in unamortized benefit plan costs – 2015	\$ 3	\$ (78)	\$ (75)

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The table below presents the components of accumulated other comprehensive loss related to the company's retirement benefit plans:

<i>\$ in millions</i>	Pension Benefits		Medical and Life Benefits	
	2015	2014	2015	2014
Amounts recorded in accumulated other comprehensive loss				
Net actuarial loss	\$ (8,741)	\$ (8,797)	\$ (220)	\$ (372)
Prior service credit	304	364	66	94
Income tax benefits related to above items	3,286	3,285	64	110
Unamortized benefit plan costs	\$ (5,151)	\$ (5,148)	\$ (90)	\$ (168)

The following table sets forth the funded status and amounts recognized in the consolidated statements of financial position for the company's retirement benefit 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	
	2015	2014	2015	2014
Change in plan assets				
Fair value of plan assets at beginning of year	\$ 25,063	\$ 24,098	\$ 1,216	\$ 1,175
Net gain on plan assets	(258)	2,298	(5)	108
Employer contributions	578	78	68	57
Participant contributions	10	19	22	50
Benefits paid	(1,428)	(1,409)	(151)	(186)
Other	(15)	(21)	3	12
Fair value of plan assets at end of year	23,950	25,063	1,153	1,216
Change in projected benefit obligation				
Projected benefit obligation at beginning of year	30,525	25,972	2,398	2,224
Service cost	484	457	35	34
Interest cost	1,224	1,260	94	99
Participant contributions	10	19	22	50
Plan amendments	—	—	—	(92)
Actuarial (gain) loss	(1,602)	4,273	(219)	258
Benefits paid	(1,428)	(1,409)	(151)	(186)
Other	(31)	(47)	2	11
Projected benefit obligation at end of year	29,182	30,525	2,181	2,398
Funded status	\$ (5,232)	\$ (5,462)	\$ (1,028)	\$ (1,182)

Classification of amounts recognized in the consolidated statements of financial position

Non-current assets	\$ 18	\$ 3	\$ 79	\$ 80
Current liability	(142)	(133)	(43)	(39)
Non-current liability	(5,108)	(5,332)	(1,064)	(1,223)

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The following table shows those amounts expected to be recognized in net periodic benefit cost in 2016:

<i>\$ in millions</i>	Pension Benefits		Medical and Life Benefits		Total
Amounts expected to be recognized in 2016 net periodic benefit cost					
Net actuarial loss	\$	714	\$	16	\$ 730
Prior service credit		(60)		(22)	(82)

The accumulated benefit obligation for all defined benefit pension plans was \$29.0 billion and \$30.3 billion at December 31, 2015 and 2014, 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	
	2015	2014
Projected benefit obligation	\$ 29,131	\$ 30,405
Accumulated benefit obligation	28,923	30,172
Fair value of plan assets	23,882	24,940

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Plan Assumptions

On a weighted-average basis, the following assumptions were used to determine benefit obligations and net periodic benefit cost:

	Pension Benefits		Medical and Life Benefits	
	2015	2014	2015	2014
Assumptions used to determine benefit obligation at December 31				
Discount rate	4.53%	4.12%	4.47%	4.04%
Initial cash balance crediting rate assumed for the next year	3.00%	2.75%		
Rate to which the cash balance crediting rate is assumed to increase (the ultimate rate)	3.75%	3.50%		
Year that the cash balance crediting rate reaches the ultimate rate	2021	2020		
Rate of compensation increase	3.00%	3.00%		
Initial health care cost trend rate assumed for the next year			7.00%	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			2020	2019
Assumptions used to determine benefit cost for the year ended December 31				
Discount rate	4.12%	4.99%	4.04%	4.90%
Initial cash balance crediting rate assumed for the next year	2.75%	3.90%		
Rate to which the cash balance crediting rate is assumed to increase (the ultimate rate)	3.50%	4.70%		
Year that the cash balance crediting rate reaches the ultimate rate	2020	2019		
Expected long-term return on plan assets	8.00%	8.00%	7.58%	7.45%
Rate of compensation increase	3.00%	3.00%		
Initial health care cost trend rate assumed for the next year			6.50%	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			2019	2017

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. The investment goal is to exceed the assumed rate of return over the long term within reasonable and prudent levels of risk. Through consultation with our investment management team and outside investment advisers, management develops expected long-term returns for each of the plans' strategic asset classes. In addition to our historical investment performance, we consider several factors, including current market data such as yields/price-earnings ratios, historical market returns over long periods and periodic surveys of investment managers' expectations. Using policy target allocation percentages and the asset class expected returns, we calculate a weighted-average expected return. 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 are in compliance with ERISA (Employee Retirement Income Security Act). 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.

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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, 2015:

	Asset Allocation Ranges
U.S. equities	15% - 35%
International equities	10% - 30%
Fixed income securities	20% - 55%
Alternative investments	10% - 30%

The table below provides the fair values of the company's pension and VEBA trust plan assets at December 31, 2015 and 2014, 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 definition of levels). The significant amount of Level 2 investments in the table results from including in this category investments in pooled funds that contain investments with values based on quoted market prices, but for which the funds are not valued on a quoted market basis, and fixed income securities valued using model-based pricing services.

<i>\$ in millions</i>	Level 1		Level 2		Level 3		Total	
	2015	2014	2015	2014	2015	2014	2015	2014
Asset category								
Cash and cash equivalents ⁽¹⁾	\$ 37	\$ 38	\$ 1,471	\$ 1,737			\$ 1,508	\$ 1,775
U.S. equities ⁽²⁾	4,043	4,729	593	147	\$ 2	\$ 2	4,638	4,878
International equities ⁽²⁾	2,300	2,675	2,551	2,062			4,851	4,737
Fixed income securities								
U.S. Treasuries			530	957			530	957
U.S. Government Agency			717	909			717	909
Non-U.S. Government			309	440			309	440
Corporate debt			4,919	5,710			4,919	5,710
Asset backed			392	604	1	4	393	608
High yield debt			1,719	586			1,719	586
Bank loans			261	228			261	228
Alternative Investments								
Hedge funds					497	632	497	632
Private equities					1,850	2,030	1,850	2,030
Real estate					2,886	2,759	2,886	2,759
Other ⁽³⁾	20	32	5	(2)			25	30
Fair value of plan assets at the end of the year	\$6,400	\$7,474	\$13,467	\$13,378	\$5,236	\$5,427	\$25,103	\$26,279

⁽¹⁾ Cash and cash equivalents are predominantly held in money market or short-term investment funds.

⁽²⁾ U.S. and international equities represent private investment funds that primarily hold diversified investments in underlying equity securities. These funds are structured as limited partnerships, one of which has an unfunded commitment of \$25 million. Redemption periods are monthly with a notice requirement less than 30 days.

⁽³⁾ Other assets include derivative assets with a fair value of \$40 million and \$84 million, derivative liabilities with a fair value of \$25 million and \$59 million, and net notional amounts of \$3.2 billion and \$3.0 billion, as of December 31, 2015 and 2014, 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. The volume of derivative activity is commensurate with the amounts disclosed at year-end. Certain derivative financial instruments within the pension trust are subject to master netting agreements with certain counterparties.

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The changes in the fair value of the pension and VEBA plan trust assets measured using Level 3 significant unobservable inputs during 2015 and 2014, are as follows:

<i>\$ in millions</i>	Hedge funds and High-yield debt	Private equities	Real Estate	Other	Total
Balance as of December 31, 2013	\$ 822	\$ 2,075	\$ 2,767	\$ 6	\$ 5,670
Actual return on plan assets:					
Unrealized (losses) gains, net	(46)	(60)	173	—	67
Realized gains, net	89	10	71	—	170
Purchases	21	431	61	—	513
Sales	(254)	(426)	(313)	—	(993)
Balance as of December 31, 2014	632	2,030	2,759	6	5,427
Actual return on plan assets:					
Unrealized gains (losses), net	(55)	(193)	235	—	(13)
Realized gains (losses), net	50	(2)	(7)	—	41
Purchases	87	225	52	—	364
Sales	(217)	(210)	(153)	(3)	(583)
Balance as of December 31, 2015	\$ 497	\$ 1,850	\$ 2,886	\$ 3	\$ 5,236

The amount of total gains and (losses) for the period attributable to the change in unrealized gains or (losses) related to assets held at year-end	\$ (55)	\$ (172)	\$ 310	\$ —	\$ 83
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There were no transfers of plan assets between the three levels of the fair value hierarchy during the years ended December 31, 2015 and 2014.

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. U.S. and international equities consist primarily of common stocks and institutional common trust funds. Investments in common and preferred shares are valued at the last reported sales price of the stock on the last business day of the reporting period. Units in common trust funds and hedge funds are valued based on the redemption price of units owned by the trusts at year-end. Fair value for real estate and private equity partnerships is primarily based on valuation methodologies that include third party appraisals, comparable transactions, discounted cash flow valuation models and public market data.

Non-government fixed income securities are invested across various industry sectors and credit quality ratings. Generally, investment guidelines are written to limit securities, for example, to no more than five percent of each trust account, and to exclude the purchase of securities issued by the company. The number of real estate, hedge fund and private equity partnerships is 167 and the unfunded commitments are \$1.5 billion and \$833 million as of December 31, 2015 and 2014, respectively. For alternative investments that cannot be redeemed, the typical investment term is ten years. For alternative investments that permit redemptions, such redemptions are generally made quarterly and require a 90-day notice. The company is generally unable to determine the final redemption date and amount until the request is processed by the investment fund and therefore categorizes such alternative investments as Level 3 assets.

For the years ended December 31, 2015 and 2014, the defined benefit pension and VEBA trusts did not hold any Northrop Grumman common stock.

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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, 2015:

<i>\$ in millions</i>	Pension Plans		Medical and Life Plans		Total
Year Ending December 31					
2016	\$	1,469	\$	151	\$ 1,620
2017		1,513		155	1,668
2018		1,563		158	1,721
2019		1,614		160	1,774
2020		1,664		161	1,825
2021 through 2025		9,065		788	9,853

In 2016, the company expects to contribute the required minimum funding of approximately \$79 million to its pension plans and approximately \$75 million to its other post-retirement benefit plans. During the year ended December 31, 2015, the company made a voluntary pension contribution of \$500 million.

13. STOCK COMPENSATION PLANS AND OTHER COMPENSATION ARRANGEMENTS

Stock Compensation Plans

At December 31, 2015, Northrop Grumman had stock-based compensation awards outstanding under the following plans: the 2001 Long-Term Incentive Stock Plan (2001 Plan) and the 2011 Long-Term Incentive Stock Plan (2011 Plan), both applicable to employees, and the 1993 Stock Plan for Non-Employee Directors (1993 SPND). All of these plans were approved by the company's shareholders. The company has historically issued new shares to satisfy award grants.

Employee Plans – In 2011, the shareholders of the company approved the company's 2011 Plan, which replaced the expired 2001 Plan. The 2011 Plan permits grants to key employees of three general types of stock incentive awards: stock options, stock appreciation rights (SARs) and stock awards. Outstanding stock options granted after January 1, 2008, vest in equal increments over three years from the grant date, and grants outstanding expire seven years after the grant date. No SARs have been granted under either plan. Stock awards in the form of restricted performance stock rights (RPSR) and restricted stock rights (RSR) are granted to key employees without payment to the company. The 2011 Plan also provides equity-based award grants to non-employee directors.

Under the 2011 Plan, the company is authorized to issue or transfer shares of common stock pursuant to the types of awards mentioned above. The 2011 Plan authorized 39.1 million new shares plus 6.9 million shares from the 2001 Plan that were previously authorized and available to be issued at the date the 2001 Plan expired. In May 2015, the shareholders of the company approved amendments to the 2011 Plan (Amended 2011 Plan). The Amended 2011 Plan, among other things, removed the prior requirement to count 4.5 shares for every one stock award share issued against the aggregate share limit. Shares issued under the Amended 2011 Plan are counted against the aggregate share limit on a one-for-one basis. Based on a one-for-one share count, the amended shares available for grant are 5.1 million shares, plus 2.4 million of newly authorized shares. Under the terms of the Amended 2011 Plan, in the event awards issued under the 2001 Plan and 2011 Plan and outstanding on March 10, 2015 expire or terminate without being exercised or paid, such shares will become available for award under the Amended 2011 Plan.

Recipients of RPSRs earn shares of stock, based on achievement of financial objectives determined by the board of directors in accordance with the plan. Depending on actual performance against these objectives, recipients earn between 0 and 200 percent of the original grant (between 0 and 150 percent for the company's Corporate Policy Council), as well as dividend equivalents on the ultimate number of shares issued. Termination of employment can result in forfeiture of some or all of the benefits extended.

As of December 31, 2015, 7.5 million shares are available for grant under the Amended 2011 Plan.

Non-Employee Director Plans – Under the 2011 Plan, each non-employee director must defer a portion of their compensation into a stock unit account (Automatic Stock Units). The Automatic Stock Units accrued under the 2011 Plan and the 1993 SPND are paid out in the form of common stock at the conclusion of the director's board service, or earlier, as specified by the director, if he or she has five or more years of service. In addition, each director may

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elect to defer payment of all or a portion of his or her remaining cash retainer or committee retainer fees into a stock unit account (Elective Stock Units) or in alternative investment options. The Elective Stock Units are paid at the conclusion of board service or earlier as specified by the director, regardless of years of service. Directors are credited with dividend equivalents in connection with the Automatic and Elective Stock Units until shares of common stock related to such stock units are issued. Since all directors are eligible to receive awards under the 2011 Plan, shares from this plan are available for future director awards following the same share counting limits as described for the employee plans. Awards under the 2011 Plan are made pursuant to the Northrop Grumman Corporation Equity Grant Program for Non-Employee Directors under the 2011 Plan (the Director Program), which sets forth the terms and conditions for the awards of stock units as described above.

The Director Program was amended and restated effective January 1, 2016 (the Amended Director Program). In 2016, directors will receive two stock unit grants - a one-time transitional grant on January 1, 2016 (the Transition Stock Units) and an annual grant of Automatic Stock Units on May 18, 2016. The Transition Stock Units will vest on May 18, 2016, and the Automatic Stock Units will vest on the one year anniversary of the grant date. Under the Amended Director Program, directors may elect to have all or any portion of their Transition Stock Units and 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 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 calendar 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 will be paid out in an equivalent number of shares of Northrop Grumman common stock.

Compensation Expense

Stock-based compensation expense and the related tax benefits for the years ended December 31, 2015, 2014 and 2013, are as follows:

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Stock-based compensation expense:			
Stock options	\$ —	\$ —	\$ 4
Stock awards	99	134	140
Total stock-based compensation expense	99	134	144
Tax benefits from the exercise of stock options	6	29	25
Tax benefits from the issuance of stock awards	97	52	16
Total tax benefits recognized for stock-based compensation	\$ 103	\$ 81	\$ 41

At December 31, 2015, there was \$88 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 Options

There were no stock options issued in 2015 or 2014. As of December 31, 2015 and 2014, there were 0.1 million and 0.3 million stock options outstanding, respectively. There were 0.2 million stock options exercised during the year ended December 31, 2015. All stock options outstanding were fully vested and exercisable at December 31, 2015.

The total intrinsic value of exercised stock options for the years ended December 31, 2015, 2014 and 2013, was \$18 million, \$94 million and \$118 million, respectively. The total intrinsic value for options outstanding for the years ended December 31, 2015, 2014 and 2013, was \$20 million, \$28 million and \$101 million, respectively. Intrinsic value is measured using the fair market value at the date of exercise (for options exercised), or at December 31, 2015 (for options outstanding), less the applicable exercise price.

Stock Awards

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). 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

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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.

Stock award activity for the years ended December 31, 2015, 2014 and 2013, is presented in the table below. Vested awards do not include any adjustments to reflect the final performance measure for issued shares.

	Stock Awards (in thousands)	Weighted-Average Grant Date Fair Value	Weighted-Average Remaining Contractual Term (in years)
Outstanding at January 1, 2013	3,478	\$ 61	1.6
Granted	1,577	64	
Vested	(1,323)	60	
Forfeited	(312)	62	
Outstanding at December 31, 2013	3,420	\$ 61	1.5
Granted	763	118	
Vested	(1,217)	58	
Forfeited	(158)	70	
Outstanding at December 31, 2014	2,808	\$ 77	1.1
Granted	539	166	
Vested	(1,691)	62	
Forfeited	(70)	108	
Outstanding at December 31, 2015	1,586	\$ 122	1.2

The following table presents the number of RSRs and RPSRs granted to employees under the company's long-term incentive stock plan and the grant date aggregate fair value of those stock awards for the periods presented:

<i>in millions</i>	Year Ended December 31		
	2015	2014	2013
RSRs granted	0.2	0.2	0.5
RPSRs granted	0.4	0.6	1.1
Grant date aggregate fair value	\$ 89	\$ 90	\$ 101

The majority of our stock awards are granted annually during the first quarter. RSRs typically vest on the third anniversary of the grant date, while RPSRs generally vest and pay out based on the achievement of financial metrics for the three-year period ending on December 31 of the third year subsequent to grant.

The following table presents the gross number of shares issued to employees in settlement of fully vested stock awards and the total fair value at issuance and on the grant date for the periods presented:

<i>in millions</i>	Year Ended December 31		
	2015	2014	2013
Gross number of shares issued ⁽¹⁾	2.6	2.6	3.4
Fair value at issuance ⁽²⁾	\$ 434	\$ 305	\$ 226
Grant date fair value ⁽²⁾	143	80	105

⁽¹⁾ The gross number of shares issued includes the effect of performance adjustments. Actual shares issued to employees are net of shares withheld for taxes.

⁽²⁾ The difference between the fair value at issuance and the grant date fair value reflects changes in the fair market value of the company's common stock.

In 2016, the company expects to issue to employees approximately 1.7 million shares of common stock with a grant date fair value of \$96 million, principally related to the 2013 RPSR awards that vested as of December 31, 2015.

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The ultimate amount of shares to be paid out is subject to approval by the Compensation Committee of the Board of Directors and may vary from this estimate.

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:

<i>\$ in millions</i>	Year Ended December 31		
	2015	2014	2013
Minimum aggregate payout amount	\$ 37	\$ 32	\$ 32
Maximum aggregate payout amount	194	179	173

The following table presents unrecognized compensation expense associated with the company's cash awards:

<i>\$ in millions</i>	December 31		
	2015	2014	2013
Unrecognized compensation expense	\$ 128	\$ 122	\$ 108

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 on the achievement of financial metrics for a three-year period ending on December 31 of the third year subsequent to grant.

14. UNAUDITED SELECTED QUARTERLY DATA

Unaudited quarterly financial results are set forth in the following tables. It is the company's long-standing practice to establish actual interim closing dates using a "fiscal" calendar in which we close our books on a Friday near each quarter-end date, in order to normalize the potentially disruptive effects of quarterly closings on business processes. This practice is only used at interim periods within a reporting year.

2015

<i>In millions, except per share amounts</i>	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Sales	\$ 5,957	\$ 5,896	\$ 5,979	\$ 5,694
Operating income	780	813	794	689
Net earnings	484	531	516	459
Basic earnings per share	2.45	2.77	2.78	2.52
Diluted earnings per share	2.41	2.74	2.75	2.49
Weighted-average common shares outstanding	197.7	191.8	185.8	182.1
Weighted-average diluted shares outstanding	200.5	193.7	187.9	184.2

2014

<i>In millions, except per share amounts</i>	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Sales	\$ 5,848	\$ 6,039	\$ 5,984	\$ 6,108
Operating income	845	820	769	762
Net earnings	579	511	473	506
Basic earnings per share	2.68	2.41	2.29	2.52
Diluted earnings per share	2.63	2.37	2.26	2.48
Weighted-average common shares outstanding	216.3	212.4	206.2	200.8
Weighted-average diluted shares outstanding	220.4	215.2	209.2	204.2

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

DISCLOSURE CONTROLS AND PROCEDURES

Our principal executive officer (Chairman, 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 of December 31, 2015, 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 Securities Exchange Act of 1934 (15 USC § 78a et seq) is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission'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 REPORTING

During the three months ended December 31, 2015, no change occurred in our internal controls over financial reporting that materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

Item 9B. Other Information

None.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The 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, 2015.

Deloitte & Touche LLP issued an attestation report dated February 1, 2016, 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, 2015, have been audited by the independent registered public accounting firm of Deloitte & Touche LLP in accordance with the standards of the Public Company Accounting Oversight Board (United States).

/s/ Wesley G. Bush
Chairman, Chief Executive Officer and President

/s/ Kenneth L. Bedingfield
Corporate Vice President and Chief Financial Officer
February 1, 2016

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Northrop Grumman Corporation
Falls Church, Virginia

We have audited the internal control over financial reporting of Northrop Grumman Corporation and subsidiaries (the “Company”) as of December 31, 2015, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company’s internal control over financial reporting is a process designed by, or under the supervision of, the company’s principal executive and principal financial officers, or persons performing similar functions, and effected by the company’s board of directors, management, and other personnel 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. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2015 of the Company and our report dated February 1, 2016 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP
McLean, Virginia
February 1, 2016

PART III

Item 10. Directors, Executive Officers and Corporate Governance

DIRECTORS

Information about our Directors will be incorporated herein by reference to the Proxy Statement for the 2016 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

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EXECUTIVE OFFICERS

Our executive officers as of February 1, 2016, are listed below, along with their ages on that date, positions and offices held with the company, and principal occupations and employment, focused primarily on the past five years.

Name	Age	Office Held	Since	Recent Business Experience
Wesley G. Bush	54	Chairman, Chief Executive Officer and President	2010	President and Chief Operating Officer (2007-2009); Prior to March 2007, President and Chief Financial Officer (2006-2007); Corporate Vice President and Chief Financial Officer (2005-2006)
Patrick M. Antkowiak	55	Corporate Vice President and Chief Technology Officer	2014	Vice President and General Manager, Advanced Concepts and Technologies Division, Electronic Systems Sector (2010-2014); Vice President of Engineering, Manufacturing and Logistics, Electronic Systems Sector (2010)
M. Sidney Ashworth	64	Corporate Vice President, Government Relations	2010	Vice President of Washington Operations, GE Aviation (a provider of aircraft engines, components and systems) (2010); Prior to March 2010, Principal, the Ashworth Group (a consulting firm) (2009-2010); Professional Staff Member, U.S. Senate Committee on Appropriations (1995-2009)
Kenneth L. Bedingfield	43	Corporate Vice President and Chief Financial Officer	2015	Vice President, Finance (2014-2015); Vice President, Business Management and Chief Financial Officer, Aerospace Systems Sector (2013-2014); Corporate Vice President, Controller and Chief Accounting Officer (2011-2013); Audit Partner, KPMG LLP (a professional services firm) (2005-2011)
Mark A. Caylor	51	Corporate Vice President and President, Enterprise Services and Chief Strategy Officer	2013	Corporate Vice President and Treasurer (2011-2012); Assistant Treasurer (2008-2011); Director, Mergers & Acquisitions (2006-2008)
Sheila C. Cheston	57	Corporate Vice President and General Counsel	2010	Executive Vice President and Director, BAE Systems, Inc. (an aerospace and defense company) (2009 -2010); Prior to September 2009, Senior Vice President, General Counsel, Secretary and Director, BAE Systems, Inc. (2002-2009)
Gloria A. Flach	57	Corporate Vice President and Chief Operating Officer	2016	Corporate Vice President and President, Electronic Systems (2013-2015); Corporate Vice President and President, Enterprise Shared Services (2010-2012); Sector Vice President and General Manager, Targeting Systems Division, Electronic Systems Sector (2010); Prior to 2010, Sector Vice President and General Manager of Engineering, Manufacturing and Logistics, Electronic Systems Sector (2009)
Darryl M. Fraser*	57	Corporate Vice President, Communications	2008	Sector Vice President of Business Development and Strategic Initiatives, Mission Systems Sector (2007-2008)

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Name	Age	Office Held	Since	Recent Business Experience
Michael A. Hardesty	44	Corporate Vice President, Controller, and Chief Accounting Officer	2013	Vice President and Chief Financial Officer, Information Systems (2011-2013); Vice President, Internal Audit (2010-2011); Vice President and Chief Financial Officer, Enterprise Shared Services (2008-2010)
Christopher T. Jones	51	Corporate Vice President and President, Technology Services Sector	2016	Corporate Vice President and President, Technical Services (2013-2015); Vice President and General Manager, Integrated Logistics and Modernization Division, Technical Services Sector (2010-2012); Director of Product Support (2004-2010)
Denise M. Peppard	59	Corporate Vice President and Chief Human Resources Officer	2011	Vice President and Chief Human Resources, Computer Sciences Corporation (an information technology services company) (2010-2011); Senior Vice President of Human Resources, Wyeth Pharmaceuticals, Inc. (a pharmaceuticals company) (2001-2010)
David T. Perry	51	Corporate Vice President and Chief Global Business Development Officer	2012	Vice President and General Manager of Naval and Marine Systems Division, Electronic Systems Sector (2009-2012); Vice President of Marine Systems, Electronic Systems Sector (2005-2009)
Thomas E. Vice	53	Corporate Vice President and President, Aerospace Systems Sector	2013	Corporate Vice President and President, Technical Services (2010-2012); Sector Vice President and General Manager, Battle Management and Engagement Systems Division, Aerospace Systems Sector (2008-2010)
Kathy J. Warden	44	Corporate Vice President and President, Mission Systems Sector	2016	Corporate Vice President and President, Information Systems (2013-2015); Vice President and General Manager, Cyber Intelligence Division (2011-2012); Vice President, Cyber and SIGINT business unit (2008-2011)

*Mr. Fraser is scheduled to retire from his position on February 29, 2016.

AUDIT COMMITTEE FINANCIAL EXPERT

The information as to the Audit Committee and the Audit Committee Financial Expert will be incorporated herein by reference to the Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

CODE OF ETHICS

We have adopted Standards of Business Conduct for all of our employees, including the principal executive officer, principal financial officer and principal accounting officer. The Standards of Business Conduct can be found on our internet website at www.northropgrumman.com under "Investor Relations – Corporate Governance – Overview." A copy of the Standards of Business Conduct is available to any stockholder who requests it by writing to: Northrop Grumman Corporation, c/o Office of the Secretary, 2980 Fairview Park Drive, Falls Church, VA 22042. We disclose amendments to provisions of our Standards of Business Conduct by posting amendments on our website. Waivers of the provisions of our Standards of Business Conduct that apply to our directors and executive officers are disclosed in a Current Report on Form 8-K.

The website and information contained on it or incorporated in it are not intended to be incorporated in this report on Form 10-K or other filings with the Securities and Exchange Commission.

OTHER DISCLOSURES

Other disclosures required by this Item will be incorporated herein by reference to the Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

Item 11. Executive Compensation

Information concerning Executive Compensation, including information concerning Compensation Committee Interlocks and Insider Participation and Compensation Committee Report, will be incorporated herein by reference to the Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information as to Securities Authorized for Issuance Under Equity Compensation Plans and Security Ownership of Certain Beneficial Owners and Management will be incorporated herein by reference to the Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

For a description of securities authorized under our equity compensation plans, see Note 13 to the consolidated financial statements in Part II, Item 8.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information as to Certain Relationships and Related Transactions and Director Independence will be incorporated herein by reference to the Proxy Statement for the 2016 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

Item 14. Principal Accountant Fees and Services

The information as to Principal Accountant Fees and Services will be incorporated herein by reference to the Proxy Statement for the 2016 Annual Meeting of Shareholders to be filed within 120 days after the end of the company's fiscal year.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) 1. Report of Independent Registered Public Accounting Firm

Financial Statements

Consolidated Statements of Earnings and Comprehensive Income (Loss)

Consolidated Statements of Financial Position

Consolidated Statements of Cash Flows

Consolidated Statements of Changes in Shareholders' Equity

Notes to Consolidated Financial Statements

2. Financial Statement Schedules

All schedules have been omitted because they are not applicable, not required, or the information has been otherwise supplied in the financial statements or notes to the financial statements.

3. Exhibits

- 2(a) Separation and Distribution Agreement dated as of March 29, 2011, among Titan II, Inc. (formerly Northrop Grumman Corporation), Northrop Grumman Corporation (formerly New P, Inc.), Huntington Ingalls Industries, Inc., Northrop Grumman Shipbuilding, Inc. and Northrop Grumman Systems Corporation (incorporated by reference to Exhibit 10.2 to Form 8-K filed April 4, 2011)
- 3(a) Amended and Restated Certificate of Incorporation of Northrop Grumman Corporation dated May 29, 2012 (incorporated by reference to Exhibit 3.1 to Form 10-Q for the quarter ended June 30, 2012, filed July 24, 2012)
- 3(b) Amended and Restated Bylaws of Northrop Grumman Corporation dated December 4, 2015 (incorporated by reference to Exhibit 3.2 to Form 8-K filed December 10, 2015)
- 4(a) Registration Rights Agreement dated as of January 23, 2001, by and among Northrop Grumman Corporation (now Northrop Grumman Systems Corporation), NNG, Inc. (now Northrop Grumman Corporation) and Unitrin, Inc. (incorporated by reference to Exhibit(d)(6) to Amendment No. 4 to Schedule TO filed January 31, 2001)
- 4(b) 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)
- 4(c) 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 4.1 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011)
- 4(d) 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)
- 4(e) Form of Officers' Certificate (without exhibits) establishing the terms of Northrop Grumman Corporation's (now Northrop Grumman Systems Corporation's) 7.75 percent Debentures due 2016 and 7.875 percent Debentures due 2026 (incorporated by reference to Exhibit 4-3 to Form S-4 Registration Statement No. 333-02653 filed April 19, 1996)

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- 4(f) Form of Northrop Grumman Corporation's (now Northrop Grumman Systems Corporation's) 7.75 percent Debentures due 2016 (incorporated by reference to Exhibit 4-5 to Form S-4 Registration Statement No. 333-02653 filed April 19, 1996)
- 4(g) Form of Northrop Grumman Corporation's (now Northrop Grumman Systems Corporation's) 7.875 percent Debentures due 2026 (incorporated by reference to Exhibit 4-6 to Form S-4 Registration Statement No. 333-02653 filed April 19, 1996)
- 4(h) Form of Officers' Certificate establishing the terms of Northrop Grumman Corporation's (now Northrop Grumman Systems Corporation's) 7.75 percent Debentures due 2031 (incorporated by reference to Exhibit 10.9 to Form 8-K filed April 17, 2001)
- 4(i) Indenture dated as of April 13, 1998, between Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and The Bank of New York, as trustee, under which its 6.75 percent Senior Debentures due 2018 were issued (incorporated by reference to Exhibit 4.1 to the Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 1998, filed June 15, 1998)
- 4(j) Supplemental Indenture with respect to Indenture dated April 13, 1998, 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 4.5 to Form 10-Q for the quarter ended March 31, 2001, filed May 10, 2001)
- 4(k) Supplemental Indenture with respect to Indenture dated April 13, 1998, 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(q) to Form 10-K for the year ended December 31, 2002, filed March 24, 2003)
- 4(l) 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 Indenture dated April 13, 1998, between Litton Industries, Inc. and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.3 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011)
- 4(m) 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 Indenture dated April 13, 1998, between Litton Industries, Inc. and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.4 to Form 10-Q for the quarter ended March 31, 2011, filed April 27, 2011)
- 4(n) 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 percent and 6.98 percent 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)
- 4(o) Supplemental Indenture with respect to 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)
- 4(p) Supplemental Indenture with respect to 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)

NORTHROP GRUMMAN CORPORATION

- 4(q) 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, among Litton Industries, Inc., Northrop Grumman Corporation, Northrop Grumman Systems Corporation 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)
- 4(r) 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, among Litton Industries, Inc., Northrop Grumman Corporation, Northrop Grumman Systems Corporation 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)
- 4(s) 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)
- 4(t) 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. 33-30350 of TRW Inc.)
- 4(u) 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. 333-83227 of TRW Inc. filed July 20, 1999)
- 4(v) 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)
- 4(w) 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)
- 4(x) 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)
- 4(y) 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)
- 4(z) First Supplemental Indenture dated as of July 30, 2009, 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 July 30, 2009)
- 4(aa) Form of Northrop Grumman Corporation's 5.05 percent Senior Note due 2019 (incorporated by reference to Exhibit 4(c) to Form 8-K filed July 30, 2009)

NORTHROP GRUMMAN CORPORATION

- 4(bb) 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)
- 4(cc) Form of Northrop Grumman Corporation's 3.500% Senior Note due 2021 (incorporated by reference to Exhibit 4(a) to Form 8-K filed November 8, 2010)
- 4(dd) Form of Northrop Grumman Corporation's 5.050% Senior Note due 2040 (incorporated by reference to Exhibit 4(a) to Form 8-K filed November 8, 2010)
- 4(ee) 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)
- 4(ff) 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)
- 4(gg) 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)
- 4(hh) Form of 1.750% Senior Note due 2018 (incorporated by reference to Exhibit 4(a) to Form 8-K filed May 31, 2013)
- 4(ii) Form of 3.250% Senior Note due 2023 (incorporated by reference to Exhibit 4(a) to Form 8-K filed May 31, 2013)
- 4(jj) Form of 4.750% Senior Note due 2043 (incorporated by reference to Exhibit 4(a) to Form 8-K filed May 31, 2013)
- 4(kk) 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, 2001 (incorporated by reference to Exhibit 4.1 to Form 8-K filed February 6, 2015)
- 4(ii) Form of 3.850% Senior Note due 2045 (incorporated by reference to Exhibit 4.1 to Form 8-K filed February 6, 2015)
- 10(a) Amended and Restated Credit Agreement, dated as of July 8, 2015, among Northrop Grumman Corporation, as Borrower; Northrop Grumman Systems Corporation, as Guarantor; the lenders party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.1 to Form 8-K filed July 9, 2015)
- 10(b) Credit Agreement dated as of August 29, 2013, among Northrop Grumman Corporation, as Borrower; Northrop Grumman Systems Corporation, as Guarantor; the Lenders party thereto; JPMorgan Chase Bank, N.A., as Administrative Agent; an Issuing Bank and a Swingline Lender, and The Royal Bank of Scotland plc, Citibank, N.A., and Wells Fargo Bank, National Association, as Issuing Banks and Syndication Agents (incorporated by reference to Exhibit 10.1 to Form 8-K filed August 30, 2013)
- 10(c) Form of Guarantee dated as of April 3, 2001, by Northrop Grumman Corporation of the indenture indebtedness issued by Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) (incorporated by reference to Exhibit 10.10 to Form 8-K filed April 17, 2001)

NORTHROP GRUMMAN CORPORATION

- 10(d) Form of Guarantee dated as of April 3, 2001, by Northrop Grumman Corporation of Northrop Grumman Systems Corporation indenture indebtedness (incorporated by reference to Exhibit 10.11 to Form 8-K and filed April 17, 2001)
- 10(e) Form of Guarantee dated as of March 27, 2003, by Northrop Grumman Corporation, as Guarantor, in favor of JP Morgan Chase Bank, as trustee, of certain debt securities issued by the former Northrop Grumman Space & Mission Systems Corp. (predecessor-in-interest to Northrop Grumman Systems Corporation) (incorporated by reference to Exhibit 4.2 to Form 10-Q for the quarter ended March 31, 2003, filed May 14, 2003)
- +10(f) Northrop Grumman Corporation 1993 Stock Plan for Non-Employee Directors (as Amended and Restated January 1, 2010) (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2009, filed July 23, 2009)
- +10(g) Northrop Grumman Corporation Non-Employee Directors Equity Participation Plan (Amended and Restated January 1, 2008) (incorporated by reference to Exhibit 10(q) to Form 10-K for the year ended December 31, 2007, filed February 20, 2008)
- +10(h) Northrop Grumman 2001 Long-Term Incentive Stock Plan (As amended through December 19, 2007) (incorporated by reference to Exhibit A to the Company's Proxy Statement on Schedule 14A for the 2008 Annual Meeting of Shareholders filed April 21, 2008)
- (i) Form of Notice of Non-Qualified Grant of Stock Options and Option Agreement (incorporated by reference to Exhibit 10.5 to Form S-4 Registration Statement No. 333-83672 filed March 4, 2002)
 - (ii) Form of Agreement for 2005 Stock Options (officer) (incorporated by reference to Exhibit 10(d)(v) to Form 10-K for the year ended December 31, 2004, filed March 4, 2005)
 - (iii) Form of letter from Northrop Grumman Corporation regarding Stock Option Retirement Enhancement (incorporated by reference to Exhibit 10.2 to Form 8-K dated March 14, 2005 and filed March 15, 2005)
 - (iv) Form of Agreement for 2006 Stock Options (officer) (incorporated by reference to Exhibit 10(d)(viii) to Form 10-K for the year ended December 31, 2005, filed February 17, 2006)
 - (v) Form of Agreement for 2007 Stock Options (officers) (incorporated by reference to Exhibit 10(2)(ii) to Form 10-Q for the quarter ended March 31, 2007, filed April 24, 2007)
 - (vi) Form of Agreement for 2008 Stock Options (officer) (incorporated by reference to Exhibit 10(4)(i) to Form 10-Q for the quarter ended March 31, 2008, filed April 24, 2008)
 - (vii) Form of Agreement for 2009 Stock Options (incorporated by reference to Exhibit 10.2(i) to Form 10-Q for the quarter ended March 31, 2009, filed April 22, 2009)
 - (viii) Form of Agreement for 2010 Stock Options (incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter ended March 31, 2010, filed April 28, 2010)
 - (ix) Form of Agreement for 2011 Stock Options granted under the Northrop Grumman 2001 Long-Term Incentive Stock Plan (As amended through December 19, 2007) (incorporated by reference to Exhibit 10.1 of Form 8-K filed February 22, 2011)
 - (xvi) Form of Agreement for 2011 Restricted Stock Rights granted under the Northrop Grumman 2001 Long-Term Incentive Stock Plan (As amended through December 19, 2007) (incorporated by reference to Exhibit 10.3 of Form 8-K filed February 22, 2011)
- +10(i) Amended and Restated 2011 Long-Term Incentive Stock Plan (as amended and restated effective as of May 20, 2015) (incorporated by reference to Appendix B to the Northrop Grumman Corporation Proxy Statement on Schedule 14A for the 2015 Annual Meeting of Shareholders filed April 6, 2015, File No. 001-16411)
- (i) Northrop Grumman Corporation Equity Grant Program for Non-Employee Directors under the Northrop Grumman 2011 Long-Term Incentive Stock Plan, Amended and Restated Effective January 1, 2016 (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended September 30, 2015, filed October 28, 2015)
- +10(j) Northrop Grumman 2011 Long-Term Incentive Stock Plan (as Amended Through December 4, 2014) (incorporated by reference to Exhibit 10(h) to Form 10-K for the year ended December 31, 2014, filed February 2, 2015)

NORTHROP GRUMMAN CORPORATION

- (i) Summary of Non-Employee Director Award Terms Under the 2011 Long-Term Incentive Stock Plan effective December 21, 2011 (incorporated by reference to Exhibit 10(j)(ii) to Form 10-K for the year ended December 31, 2011, filed February 7, 2012)
 - (ii) Northrop Grumman Corporation Equity Grant Program for Non-Employee Directors under the Northrop Grumman 2011 Long-Term Incentive Stock Plan, Amended and Restated Effective January 1, 2015 (incorporated by reference to Exhibit 10(h)(ii) to Form 10-K for the year ended December 31, 2014, filed February 2, 2015)
 - (iii) Grant Certificate Specifying the Terms and Conditions Applicable to 2012 Restricted Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.1 to Form 8-K filed February 17, 2012)
 - (iv) Grant Certificate Specifying the Terms and Conditions Applicable to 2012 Restricted Performance Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.2 to Form 8-K filed February 17, 2012)
 - (v) Grant Certificate Specifying the Terms and Conditions Applicable to 2013 Restricted Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.1 to Form 8-K filed February 21, 2013)
 - (vi) Grant Certificate Specifying the Terms and Conditions Applicable to 2013 Restricted Performance Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.2 to Form 8-K filed February 21, 2013)
 - (vii) Grant Certificate Specifying the Terms and Conditions Applicable to Special 2013 Restricted Stock Rights Granted to James F. Palmer Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.1 to Form 8-K filed September 23, 2013)
 - (viii) Grant Certificate Specifying the Terms and Conditions Applicable to 2014 Restricted Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.1 to Form 8-K filed February 24, 2014)
 - (ix) Grant Certificate Specifying the Terms and Conditions Applicable to 2014 Restricted Performance Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.2 to Form 8-K filed February 24, 2014)
 - (x) Amended and Restated Grant Certificate Specifying the Terms and Conditions Applicable to 2014 Restricted Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.2 to Form 10-Q for the quarter ended June 30, 2014, filed July 23, 2014)
 - (xi) Amended and Restated Grant Certificate Specifying the Terms and Conditions Applicable to 2014 Restricted Performance Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter ended June 30, 2014, filed July 23, 2014)
 - (xii) Grant Certificate Specifying the Terms and Conditions Applicable to 2015 Restricted Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.1 to Form 8-K filed February 20, 2015)
 - (xiii) Grant Certificate Specifying the Terms and Conditions Applicable to 2015 Restricted Performance Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.2 to Form 8-K filed February 20, 2015)
- +10(k) Northrop Grumman Supplemental Plan 2 (Amended and Restated Effective as of January 1, 2014) (incorporated by reference to Exhibit 10(l) to Form 10-K for the year ended December 31, 2013, Filed February 3, 2014)
- (i) Appendix B to the Northrop Grumman Supplemental Plan 2: ERISA Supplemental Program 2 (Amended and Restated Effective as of January 1, 2014) (incorporated by reference to Exhibit 10(l)(i) to Form 10-K for the year ended December 31, 2013, filed February 3, 2014)
 - (ii) Appendix F to the Northrop Grumman Supplemental Plan 2: CPC Supplemental Executive Retirement Program (Amended and Restated Effective as of January 1, 2012) (incorporated by reference to Exhibit 10(k)(iii) to Form 10-K for the year ended December 31, 2011, filed February 8, 2012)
 - (iii) Appendix G to the Northrop Grumman Supplemental Plan 2: Officers Supplemental Executive Retirement Program (Amended and Restated Effective as of January 1, 2012) (incorporated by

NORTHROP GRUMMAN CORPORATION

reference to Exhibit 10(k)(iv) to Form 10-K for the year ended December 31, 2011, filed February 8, 2012)

*(iv) Appendix I to the Northrop Grumman Supplemental Plan 2: Officers Supplemental Executive Retirement Program II

- +10(l) Northrop Grumman Supplementary Retirement Income Plan (formerly TRW Supplementary Retirement Income Plan) (Amended and Restated Effective January 1, 2014) (incorporated by reference to Exhibit 10(m) to Form 10-K for the year ended December 31, 2013, filed February 3, 2014)
- *+10(m) Northrop Grumman Electronic Systems Executive Pension Plan (Amended and Restated Effective as of January 1, 2016)
- +10(n) Severance Plan for Elected and Appointed Officers of Northrop Grumman Corporation (Amended and Restated Effective July 20, 2012) (incorporated by reference to Exhibit 10.4 to Form 10-Q for the quarter ended September 30, 2012, filed October 23, 2012)
- +10(o) Letter dated May 15, 2013, between the Board of Directors and Wesley G. Bush (incorporated by reference to Exhibit 99.1 to Form 8-K filed May 15, 2013)
- +10(p) Non-Employee Director Compensation Term Sheet, effective January 1, 2015 (incorporated by reference to Exhibit 10(p) to Form 10-K for the year ended December 31, 2014, filed February 2, 2015)
- +10(q) Non-Employee Director Compensation Term Sheet, effective May 20, 2015 (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2015, filed July 29, 2015)
- +10(r) Form of Indemnification Agreement between Northrop Grumman Corporation and its directors and executive officers (incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter ended March 31, 2012, filed April 24, 2012)
- +10(s) Northrop Grumman Deferred Compensation Plan (Amended and Restated Effective as of January 1, 2013) (incorporated by reference to Exhibit 10(t) to Form 10-K for the year ended December 31, 2012, filed February 4, 2013)
- +10(t) The 2002 Incentive Compensation Plan of Northrop Grumman Corporation, As Amended and Restated effective January 1, 2009 (incorporated by reference to Exhibit 10.6 to Form 10-Q for the quarter ended March 31, 2009, filed April 22, 2009)
- +10(u) Northrop Grumman 2006 Annual Incentive Plan and Incentive Compensation Plan (for Non-Section 162(m) Officers), as amended and restated effective January 1, 2009 (incorporated by reference to Exhibit 10.7 to Form 10-Q for the quarter ended March 31, 2009, filed April 22, 2009)
- +*10(v) Northrop Grumman Savings Excess Plan (Amended and Restated Effective as of January 1, 2016)
- +*10(w) Northrop Grumman Officers Retirement Account Contribution Plan (Amended and Restated Effective as of January 1, 2015)
- +10(x) Compensatory Arrangements of Certain Officers (incorporated by reference to Item 5.02(e) of Form 8-K filed February 20, 2015)
- +10(y) Offering letter dated February 1, 2007 from Northrop Grumman Corporation to James F. Palmer relating to position of Corporate Vice President and Chief Financial Officer (incorporated by reference to Exhibit 10(3) to Form 10-Q for the quarter ended March 31, 2007, filed April 24, 2007), as amended by Amendment to Letter Agreement between Northrop Grumman Corporation and James F. Palmer dated December 17, 2008 (incorporated by reference to Exhibit 10.3 to Form 8-K filed December 19, 2008)

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- +10(z) Northrop Grumman Supplemental Retirement Replacement Plan, as Restated, dated January 1, 2008 between Northrop Grumman Corporation and James F. Palmer (incorporated by reference to Exhibit 10.4 to Form 8-K filed December 19, 2008)
 - (i) First Amendment to the Northrop Grumman Supplemental Retirement Replacement Plan, dated October 25, 2011 (incorporated by reference to Exhibit 10(bb)(i) to Form 10-K for the year ended December 31, 2011, filed February 7, 2012)
- +10(aa) Northrop Grumman Corporation Special Officer Retiree Medical Plan (Amended and Restated Effective January 1, 2008) (incorporated by reference to Exhibit 10(2) to Form 10-Q for the quarter ended March 31, 2008, filed April 24, 2008)
- +10(bb) Executive Life Insurance Policy (incorporated by reference to Exhibit 10(gg) to Form 10-K for the year ended December 31, 2004, filed March 4, 2005)
- +10(cc) Executive Accidental Death, Dismemberment and Plegia Insurance Policy Terms applicable to Executive Officers dated January 1, 2009 (incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter ended March 31, 2009, filed April 22, 2009)
- +10(dd) Executive Long-Term Disability Insurance Policy as amended by Amendment No. 2 dated June 19, 2008 and effective as of October 4, 2007 (incorporated by reference to Exhibit 10(2) to Form 10-Q for the quarter ended June 30, 2008, filed July 29, 2008)
- +10(ee) Executive Dental Insurance Policy Group Numbers 5134 and 5135 (incorporated by reference to Exhibit 10(m) to Form 10-K for the year ended December 31, 1995, filed February 22, 1996), as amended by action of the Compensation Committee of the Board of Directors of Northrop Grumman Corporation effective July 1, 2009 (incorporated by reference to Item 5.02(e) of Form 8-K filed May 26, 2009)
- +10(ff) Group Personal Excess Liability Policy (incorporated by reference to Exhibit 10.15 to Form 10-Q for the quarter ended June 30, 2011, filed July 27, 2011)
- +10(gg) Letter dated December 16, 2009 from Northrop Grumman Corporation to Wesley G. Bush regarding compensation effective January 1, 2010 (incorporated by reference to Exhibit 10.2 to Form 8-K filed December 21, 2009)
- +10(hh) Northrop Grumman Corporation 1995 Stock Plan for Non-Employee Directors, as Amended as of May 16, 2007 (incorporated by reference to Exhibit A to the Company's Proxy Statement on Schedule 14A for the 2007 Meeting of Shareholders filed April 12, 2007)
- *+10(ii) Relocation Agreement between Northrop Grumman Corporation and Gloria A. Flach dated December 1, 2015
- *+10(jj) Relocation Agreement between Northrop Grumman Corporation and Kathy J. Warden dated December 1, 2015
- *12(a) Computation of Ratio of Earnings to Fixed Charges
- *21 Subsidiaries
- *23 Consent of Independent Registered Public Accounting Firm
- *24 Power of Attorney
- *31.1 Rule 13a-15(e)/15d-15(e) Certification of Wesley G. Bush (Section 302 of the Sarbanes-Oxley Act of 2002)
- *31.2 Rule 13a-15(e)/15d-15(e) Certification of Kenneth L. Bedingfield (Section 302 of the Sarbanes-Oxley Act of 2002)
- **32.1 Certification of Wesley G. Bush pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

NORTHROP GRUMMAN CORPORATION

- **32.2 Certification of Kenneth L. Bedingfield pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- *101 Northrop Grumman Corporation Annual Report on Form 10-K for the fiscal year ended December 31, 2015, formatted in XBRL (Extensible Business Reporting Language); (i) the Consolidated Statements of Earnings and Comprehensive Income (Loss), (ii) Consolidated Statements of Financial Position, (iii) Consolidated Statements of Cash Flows, (iv) Consolidated Statements of Changes in Shareholders' Equity, and (v) Notes to Consolidated Financial Statements
- + Management contract or compensatory plan or arrangement
- * Filed with this Report
- ** Furnished with this Report

Memorandum

Northrop Grumman Systems Corporation

To: Gloria A. Flach

From: Denise Peppard

Subject: Relocation

Date: December 1, 2015

This Memorandum sets forth the terms of your relocation to Virginia, in connection with your election to Corporate Vice President and Chief Operating Officer, effective January 1, 2016.

The Company will pay you \$250,000, less applicable withholding ("Relocation Payment"), on or before December 31, 2015, subject to all of the terms set forth in this Memorandum and only if you satisfy all of the following conditions ("Conditions"):

- You remain continuously and actively employed by the Company (except for legally protected absences) through December 31, 2017, you continue to perform in accordance with expected standards of performance, and you continue to comply with the policies, practices and procedures relevant to your employment with the Company; and
- You forfeit any other reimbursements that would normally be provided under the Company's relocation policy.

If you do not satisfy all of the Conditions, you will be required to immediately return the Relocation Payment. However, if the Company terminates your employment other than for Cause prior to December 31, 2017 and you continue to meet the Conditions up to and including such termination date, you will not be required to return the Relocation Payment, provided that you first sign a release of claims acceptable to the Company no later than your termination date, and do not revoke the signed release. (For purposes of this Memorandum, "Cause" includes unsatisfactory performance, violations of company policies or procedures, and/or any significant breach of the Company's values, ethics or standards of business conduct.) Further, if you resign your employment with the Company prior to December 31, 2017 and meet the Conditions up to and including your termination date, you will only be required to pay back a prorated portion of the Relocation Payment (i.e., the number of full or partial calendar months from the termination date to December 31, 2017 divided by 25).

Any legal claim regarding this Memorandum shall be resolved in accordance with the arbitration procedures set forth in Corporate Procedure H103A, except that you and the Company shall share equally the fees and costs of the arbitrator and the prevailing party in the arbitration shall be entitled to receive from the losing party reasonably incurred attorneys' fees and costs. Further, any arbitration hearing and related proceeding shall be convened in Falls Church, VA.

Nothing in this Memorandum entitles you to continued employment with the Company for any duration of time, in any particular position or responsibility, or at any particular level of compensation or benefits. This Memorandum shall only entitle you to the payment of the Relocation Payment described above, if applicable.

This Memorandum shall supersede all other understandings or agreements regarding your relocation. This Memorandum shall be governed by and interpreted and enforced in accordance

Relocation Memorandum
Gloria A. Flach
Page 2

with the laws of the Commonwealth of Virginia, without regard to rules regarding conflicts of law.

Please sign below acknowledging your agreement to the terms and conditions of this Memorandum. Thank you for your continued contributions to the Company.

I acknowledge receipt of this Memorandum and agree to its terms and conditions:

Gloria A. Flach:/s/ Gloria A. Flach _____ Date:12/8/15

Memorandum

Northrop Grumman Systems Corporation

To: Kathy J. Warden

From: Denise Peppard

Subject: Relocation

Date: December 1, 2015

This Memorandum sets forth the terms of your relocation to Maryland, in connection with your election to Corporate Vice President and President, Mission Systems, effective January 1, 2016.

The Company will pay you \$250,000, less applicable withholding ("Relocation Payment"), on or before December 31, 2015, subject to all of the terms set forth in this Memorandum and only if you satisfy all of the following conditions ("Conditions"):

- You remain continuously and actively employed by the Company (except for legally protected absences) through December 31, 2017, you continue to perform in accordance with expected standards of performance, and you continue to comply with the policies, practices and procedures relevant to your employment with the Company; and
- You forfeit any other reimbursements that would normally be provided under the Company's relocation policy.

If you do not satisfy all of the Conditions, you will be required to immediately return the Relocation Payment. However, if the Company terminates your employment other than for Cause prior to December 31, 2017 and you continue to meet the Conditions up to and including such termination date, you will not be required to return the Relocation Payment, provided that you first sign a release of claims acceptable to the Company no later than your termination date, and do not revoke the signed release. (For purposes of this Memorandum, "Cause" includes unsatisfactory performance, violations of company policies or procedures, and/or any significant breach of the Company's values, ethics or standards of business conduct.) Further, if you resign your employment with the Company prior to December 31, 2017 and meet the Conditions up to and including your termination date, you will only be required to pay back a prorated portion of the Relocation Payment (i.e., the number of full or partial calendar months from the termination date to December 31, 2017 divided by 25).

Any legal claim regarding this Memorandum shall be resolved in accordance with the arbitration procedures set forth in Corporate Procedure H103A, except that you and the Company shall share equally the fees and costs of the arbitrator and the prevailing party in the arbitration shall be entitled to receive from the losing party reasonably incurred attorneys' fees and costs. Further, any arbitration hearing and related proceeding shall be convened in Falls Church, VA.

Nothing in this Memorandum entitles you to continued employment with the Company for any duration of time, in any particular position or responsibility, or at any particular level of compensation or benefits. This Memorandum shall only entitle you to the payment of the Relocation Payment described above, if applicable.

This Memorandum shall supersede all other understandings or agreements regarding your relocation. This Memorandum shall be governed by and interpreted and enforced in accordance

Relocation Memorandum
Kathy J. Warden
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with the laws of the Commonwealth of Virginia, without regard to rules regarding conflicts of law.

Please sign below acknowledging your agreement to the terms and conditions of this Memorandum. Thank you for your continued contributions to the Company.

I acknowledge receipt of this Memorandum and agree to its terms and conditions:

Kathy J. Warden:/s/ Kathy J. Warden Date:12/1/15

APPENDIX I
TO THE NORTHROP GRUMMAN SUPPLEMENTAL PLAN 2

Officers Supplemental Executive Retirement Program II

(Amended and Restated Effective as of January 1, 2014)

Appendix I to the Northrop Grumman Supplemental Plan 2 (the "Appendix") is hereby amended and restated effective as of January 1, 2014. This restatement amends a prior version of the Appendix which was effective January 1, 2011.

I.01 **Purpose.** The purpose of this Program is to give enhanced retirement benefits to eligible officers of the Company.

Effective as of December 31, 2014, benefit accruals for all Participants under this Program other than those accruals under Section I.04(g) shall be frozen. A Participant's benefit under this Program will be based on his Months of Benefit Service and his Final Average Salary as of December 31, 2014, or at such earlier date that the Participant ceases to be eligible for the Program. A Participant's service after December 31, 2014 will be considered for the purposes of determining his vesting status, his early retirement eligibility, and calculating the early retirement reductions related to his frozen benefit.

I.02 **Definitions and Construction.**

- (a) Capitalized terms used in this Appendix that are not defined in this Appendix or Article I of the Plan are taken from the Qualified Plans, and are intended to have the same meaning.
 - (b) "Cash Balance Program" means the Northrop Grumman Corporation Cash Balance Program, or any successor thereto.
 - (c) Eligible Pay. Subject to paragraphs (1) through (3) below, Eligible Pay will be based on the eligible pay a Participant would have under the Cash Balance Program if (i) the Participant was eligible to participate in the Cash Balance Program, (ii) there were no limits on eligible pay under the Cash Balance Program under applicable limitations of the Code, including section 401(a)(17), and (iii) amounts deferred under the Northrop Grumman Deferred Compensation Plan and the Northrop Grumman Savings Excess Plan counted as eligible pay under the Cash Balance Program.
 - (1) If a Participant experiences a Termination of Employment before December 31 or is hired after January 1 of any year, Eligible Pay for the year in which the Participant's Termination of Employment or date of hire
-

occurs is determined in accordance with the Standard Annualization Procedure in Article 2 of the Cash Balance Program.

- (2) The following shall not be considered as Eligible Pay for purposes of determining the amount of any benefit under the Program:
 - (A) any payment authorized by the Compensation Committee that is (1) calculated pursuant to the method for determining a bonus amount under the Annual Incentive Plan (AIP) for a given year, and (2) paid in lieu of such bonus in the year prior to the year the bonus would otherwise be paid under the AIP, and
 - (B) any award payment under the Northrop Grumman Long-Term Incentive Cash Plan.
- (3) Eligible Pay shall include amounts earned after a Participant attains age 65.
- (d) Final Average Salary for any Plan Year is the Participant's average Eligible Pay for the highest three Plan Years in which the Participant was an employee of an Affiliated Company.
- (e) Months of Benefit Service.
 - (1) Except as provided in (2) and (3) below, a Participant shall be credited with a Month of Benefit Service for each month that would count as Credited Service under the Cash Balance Program if the Participant was eligible to participate in the Cash Balance Program.
 - (2) Months of Benefit Service will continue to be counted for a Participant until cessation of the Participant's status as an elected or appointed officer of the Company (except as otherwise provided in Section I.04(f)).
 - (3) Months of Benefit Service shall not include any time that counts as service under any portion of a plan spun out of the Company's controlled group, if the service would no longer be treated as benefit accrual service under the Cash Balance Program if the Participant was eligible to participate in the Cash Balance Program.
 - (4) Months of Benefit Service shall continue to be earned after a Participant has attained age 65.
- (f) Benefits are calculated without regard to the limits in sections 401(a)(17) and 415 of the Code.

I.03 Eligibility. Eligibility for benefits under this Program is limited to the elected or appointed officers of the Company hired or rehired after June 2008 and on or before December 31, 2009 and designated for participation in the Program by the Vice President, Compensation, Benefits & International (as such title may be modified from time to time).

I.04 Benefit Amount.

- (a) A Participant's annual Normal Retirement Benefit under this Program equals the sum of (1) through (3) below, subject to the limit described in Section I.05:
- (1) $2.0\% \times \text{Final Average Salary} \times \text{Months of Benefit Service up to 120 months} \div 12$
 - (2) $1.5\% \times \text{Final Average Salary} \times \text{Months of Benefit Service in excess of 120 months up to 240 months} \div 12$
 - (3) $1.0\% \times \text{Final Average Salary} \times \text{Months of Benefit Service in excess of 240 months up to 540 months} \div 12$
- (b) The total benefit payable is a straight life annuity commencing at age 65, assuming an annual benefit equal to the gross benefit under (a). The form of benefit and timing of commencement will be determined under Section I.06.
- (c) If a Participant's benefit is paid under this Program before age 65, the benefit will be adjusted as follows. The Early Retirement Benefit is a monthly benefit equal to the Normal Retirement Benefit reduced by the lesser of:
- (1) 1/12th of 2.5% for each calendar month the payment of benefits begins before age 65; or
 - (2) 2.5% for each benefit point less than 85 where the Participant's benefit points (truncated to reach a whole number) equal the sum of:
 - (A) his or her age (computed to the nearest 1/12th of a year) at the annuity starting date, and
 - (B) 1/12th of his or her Months of Benefit Service (also computed to the nearest 1/12th of a year) as of the date his or her employment terminated.
- (d) Except as provided otherwise in this Appendix I, no benefit will be paid under this Program if a Participant experiences a Termination of Employment before (1) attaining age 55 and completing 120 Months of Benefit Service, or (2) attaining age 65 and completing 60 Months of Benefit Service.

(e) A Participant shall be entitled to benefits notwithstanding the Participant's failure to meet the requirements of Section I.04(d) if the following requirements are satisfied:

- (1) the Participant has been involuntarily terminated or terminated due to the divestiture of his business unit;
- (2) the Participant has reached age 53 and completed 10 years of early retirement eligibility service, or has accumulated 75 points, as of the date of termination, all as determined under the terms of the Northrop Grumman Pension Plan (assuming the Participant were eligible to participate in such plan); and
- (3) the Participant is actively accruing benefits under the Program as of the date of termination.

If a Participant receives a notice of an involuntary termination and then transfers to another related entity instead of being involuntarily terminated, the Participant will not qualify for vesting under this subsection (e). If an involuntarily terminated Participant is rehired by the Company, vesting under this subsection (e) would not apply unless the Participant is subsequently terminated and meets the requirements described above.

All benefits payable pursuant to this subsection (e) shall be subject to reduction for early retirement as applicable under Section I.04(c).

(f) The rules set forth in this Section I.04(f) shall apply in the event a Participant ceases to satisfy the eligibility requirements of Section I.03 (the "eligibility requirements") because the Participant is no longer an elected or appointed officer of the Company:

- (1) for purposes of calculating the Participant's benefit amount pursuant to Section I.04(a), "Eligible Pay" and "Months of Benefit Service" shall not reflect amounts paid or service on or after the date the Participant ceases to satisfy the eligibility requirements, except that in the event the Participant subsequently satisfies the eligibility requirements, "Eligible Pay" and "Months of Benefit Service" shall reflect all pay and past service to the extent consistent with the terms of this Program in effect for newly eligible employees at the time the Participant satisfies the eligibility requirements for the second time;
- (2) for purposes of applying the 60% limitation pursuant to Section I.05, "Eligible Pay" shall include amounts paid on or after the date the Participant ceases to satisfy the eligibility requirements;

- (3) for purposes of applying Sections I.04(d) and I.04(e), service on or after the date the Participant ceases to satisfy the eligibility requirements shall continue to count as service;
 - (4) for purposes of applying the reduction for early retirement pursuant to Section I.04(c), service on or after the date the Participant ceases to satisfy the eligibility requirements shall continue to count as service.
- (g)
- (1) If a Participant experiences a Termination of Employment after earning at least three Years of Vesting Service and is not vested in benefits under the Program under subsection (d), (e), or (f) above, he shall be entitled to a benefit equal to the benefit he would have received had he participated in the Cash Balance Program from his date of hire and if there were no Code limits on compensation or benefits under the Cash Balance Program.
 - (2) If a Participant is vested in benefits under the Program under subsection (d), (e), or (f) above and experiences a Termination of Employment after 2014 and after earning at least three Years of Vesting Service, he shall be entitled to an additional benefit equal to the benefit he would have received had he commenced participation in the Cash Balance Program on January 1, 2015 and if there were no Code limits on compensation or benefits under the Cash Balance Program.
 - (3) Any benefits payable under this Section I.04(g) will be payable in accordance with Section I.06.

I.05 Benefit Limit. A Participant's total accrued benefits under all defined benefit retirement plans, programs, and arrangements maintained by the Affiliated Companies, whether qualified or nonqualified (but not contributory or defined contribution plans, programs, or arrangements) in which he or she participates, including the benefit accrued under Section I.04, may not exceed 60% of his or her Final Average Salary. If this limit is exceeded, the Participant's benefit accrued under this Program will be reduced to the extent necessary to satisfy the limit.

- (a) The Participant's Final Average Salary will be reduced for early retirement applying the factors in Sections I.04(c) and I.09.
- (b) The limit in this subsection may not be exceeded even after the benefits under this Program have been enhanced under any Special Agreements.

I.06 Payment of Benefits. Benefits will be paid in accordance with Appendix 2 of the Plan.

I.07 Death Benefits. Any payments to be made upon the death of a Participant shall be determined under and distributed in accordance with Appendix 2 of the Plan.

I.08 Individual Arrangements. This Section applies to a Participant who has an individually-negotiated arrangement with the Company for supplemental retirement pension benefits. Notwithstanding any other provision to the contrary, this Section does not apply to any individually-negotiated arrangements between a Participant and the Company concerning severance payments.

- (a) This Section is intended to coordinate the benefits under this Program with those of any individually-negotiated arrangement. Participants with such arrangements will be paid the better of the benefits under the arrangement or under Sections I.04 or I.07 (as limited by I.05).
- (b) In no case will duplicate benefits be paid under this Program and such an individual arrangement. Any payments under this Program will be counted toward the Company's obligations under an individual arrangement, and vice-versa.
- (c) If the benefit under an individually-negotiated arrangement exceeds the one payable under this Program, then the individual benefit will be substituted as the benefit payable under this Program (even if it exceeds the limit under I.05).
- (d) To determine which benefit is greater, all benefits will be compared, subject to adjustment for early retirement using the applicable factors and methodologies under Section I.04(c).
- (e) For purposes of (d), the individually-negotiated benefit will be determined in accordance with all of its terms and conditions. Nothing in this Section is meant to alter any of those terms and conditions.
- (f) This Section does not apply to the Special Agreements.

I.09 Actuarial Assumptions. The following defined terms and actuarial assumptions will be used to the extent necessary under Sections I.05 and I.08 to convert benefits to straight life annuity form commencing upon the Participant reaching age 65:

Interest: Five percent (5%)

Mortality: The applicable mortality table which would be used to calculate a lump sum value for the benefit under the Qualified Plans.

Increase in Code Section 415 Limit: 2.8% per year.

Variable Unit Values: Variable Unit Values are presumed not to increase for future periods after commencement of benefit.

- I.10 Forfeiture of Benefits. Notwithstanding any other provision of this Program, this Section applies to a Participant's total accrued benefit under this Program earned after 2010.
- (a) Determination of a Forfeiture Event. The Compensation Committee or its delegate will, in its sole discretion, determine whether a Forfeiture Event (as defined in subsection (b)) has occurred; provided that no Forfeiture Event shall be incurred by a Participant who has a termination of employment due to mandatory retirement pursuant to Company policy. Such a determination may be made by the Compensation Committee or its delegate for up to one year following the date that the Compensation Committee has actual knowledge of the circumstances that could constitute a Forfeiture Event.
- (b) Forfeiture Event Defined. A "Forfeiture Event" means that, while employed by any of the Affiliated Companies or at any time in the two year period immediately following the Participant's last day of employment by one of the Affiliated Companies, the Participant, either directly or indirectly through any other person, is employed by, renders services (as a director, consultant or otherwise) to, has any ownership interest in, or otherwise participates in the financing, operation, management or control of, any business that is then in competition with the business of any of the Affiliated Companies. A Participant will not, however, be considered to have incurred a Forfeiture Event solely by reason of owning up to (and not more than) two percent (2%) of any class of capital stock of a corporation that is registered under the Securities Exchange Act of 1934.
- (c) Forfeiture of Benefits.
- (1) If the Compensation Committee or its delegate determines that a Forfeiture Event has occurred, the relevant Participant may forfeit up to 100% of his or her total accrued benefit under this Program earned after 2010. The amount forfeited, if any, will be determined by the Compensation Committee or its delegate in its sole discretion, and may consist of all or a portion of the Program benefits earned after 2010 and not yet paid.
- (2) Program benefits earned by a Participant after 2010 shall be deemed to constitute a proportionate share of each payment of benefits for purposes of determining the portion of each such payment to be forfeited under subsection (1).
- (3) Any forfeiture pursuant to this Section will also apply with respect to survivor benefits or benefits assigned under a Qualified Domestic Relations Order.
- (d) Coordination with 60% Benefit Limit. For purposes of applying the 60% of Final Average Salary benefit limit of Section I.05, or any other similar provision in

other plans, programs and arrangements of the Affiliated Companies, such benefit limit will be applied as if no forfeiture occurred under this Section I.10.

(e) Notice and Claims Procedure.

- (1) The Company will provide timely notice to any Participant who incurs a forfeiture pursuant to this Section I.10. Any delay by the Company in providing such notice will not otherwise affect the amount or timing of any forfeiture determined by the Compensation Committee or its delegate.
- (2) The procedures set forth in the Company's standardized Northrop Grumman Nonqualified Plans Claims and Appeals Procedures ("Claims Procedures") will apply to any claims and appeals arising out of or related to any forfeiture under this Section I.10, except as provided below:
 - (A) The Compensation Committee, or its delegate, will serve in place of the designated decision-makers on any such claims and appeals.
 - (B) After a claimant has exhausted his remedies under the Claims Procedures, including the appeal stage, the claimant forgoes any right to file a civil action under ERISA section 502(a), but instead may present any claims arising out of or related to any forfeiture under this Section I.10 to final and binding arbitration in the manner described below:
 - (i) A claimant must file a demand for arbitration no later than one year following a final decision on the appeal under the Claims Procedures. After such period, no claim for arbitration may be filed, and the decision becomes final. A claimant must deliver a demand for arbitration to the Company's General Counsel.
 - (ii) Any claims presented shall be settled by arbitration consistent with the Federal Arbitration Act, and consistent with the then-current Arbitration Rules and Procedures for Employment Disputes, or equivalent, established by JAMS, a provider of private dispute resolution services.
 - (iii) The parties will confer to identify a mutually acceptable arbitrator. If the parties are unable to agree on an arbitrator, the parties will request a list of proposed arbitrators from JAMS and:
 - (a) If there is an arbitrator on the list acceptable to both parties, that person will be selected.
If there is more

than one arbitrator on the list acceptable to both parties, each party will rank each arbitrator in order of preference, and the arbitrator with the highest combined ranking will be selected.

- (b) If there is no arbitrator acceptable to both parties on the list, the parties will alternately strike names from the list until only one name remains, who will be selected.
- (iv) The fees and expenses of the arbitrator will be borne equally by the claimant and the Company. Each side will be entitled to use a representative, including an attorney, at the arbitration. Each side will bear its own deposition, witness, expert, attorneys' fees, and other expenses to the same extent as if the matter were being heard in court. If, however, any party prevails on a claim, which (if brought in court) affords the prevailing party attorneys' fees and/or costs, then the arbitrator may award reasonable fees and/or costs to the prevailing party to the same extent as would apply in court. The arbitrator will resolve any dispute as to who is the prevailing party and as to the reasonableness of any fee or cost.
- (v) The arbitrator will take into account all comments, documents, records, other information, arguments, and theories submitted by the claimant relating to the claim, or considered by the Compensation Committee or its delegate relating to the claim, but only to the extent that it was previously provided as part of the initial decision or appeal request on the claim.

The arbitrator may grant a claimant's claim only if the arbitrator determines it is justified based on: (a) the Compensation Committee, or its delegate erred upon an issue of law in the appeal request, or (b) the Compensation Committee's, or its delegate's, findings of fact during the appeal process were not supported by the evidence.

- (vi) The arbitrator shall issue a written opinion to the parties stating the essential findings and conclusions upon which the arbitrator's award is based. The decision of the arbitrator will be final and binding upon the claimant and the Company. A reviewing court may only confirm, correct,

or vacate an award in accordance with the standards set forth in the Federal Arbitration Act, 9 U.S.C. §§ 1-16.

(vii) In the event any court finds any portion of this procedure to be unenforceable, the unenforceable section(s) or provision(s) will be severed from the rest, and the remaining section(s) or provisions(s) will be otherwise enforced as written.

(f) Application. Should a Forfeiture Event occur, this Section I.10 is in addition to, and does not in any way limit, any other right or remedy of the Affiliated Companies, at law or otherwise, in connection with such Forfeiture Event.

I.11 TASC Participants. Participants who are actively employed in a TASC Entity: 254 or 255 on the date the entities are transferred to an unrelated buyer ("TASC Closing Date") will be 100% vested in their benefit determined under Section I.04(a), (b) and (c) of the Program on the TASC Closing Date. No pay or service after the TASC Closing Date will count for purposes of determining the amount of such a Participant's benefit under the Program. If the TASC Closing Date occurs before 2010, the TASC Closing Date shall be deemed to be January 1, 2010 for purposes of determining the rights of Participants.

I.12 Special Rules for Certain Participants. The Vice President, Compensation, Benefits & International (as such title may be modified from time to time) may designate certain Participants who were rehired in 2009 as subject to the following special rules notwithstanding anything in the Program to the contrary.

(a) Service Credit. For vesting and benefit accrual purposes, the Participant will be credited with Months of Benefit Service from the Participant's original date of hire through the Participant's original termination date and from the Participant's rehire date through December 31, 2010. After 2010, for vesting and benefit accrual purposes, the Participant will be credited with Months of Benefit Service in accordance with the terms of the Program. The Participant's rehire date will be considered the Participant's date of hire for purposes of Section I.04(g).

(b) Benefit Amount. The amount of the Participant's benefit under the Program will be reduced by all benefits accrued as of December 31, 2010 under Company qualified and nonqualified defined benefit retirement plans. Offset procedures shall follow those established in Section G.05(c) of Appendix G.

I.13 Transfer of Liabilities to HII. Northrop Grumman Corporation distributed its interest in Huntington Ingalls Industries, Inc. ("HII") to its shareholders on March 31, 2011 (the "HII Distribution Date"). Pursuant to an agreement between Northrop Grumman Corporation and HII, on the HII Distribution Date certain employees and former employees of HII ceased to participate in the Program and the liabilities for these participants' benefits under the Program were transferred to HII. On and after the HII Distribution Date, the Company and the Program, and any successors thereto, shall have

no further obligation or liability to any such participant with respect to any benefit, amount, or right due under the Program.

* * *

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IN WITNESS WHEREOF, this Amendment and Restatement is hereby executed by a duly authorized officer on this 27th day of September, 2013.

NORTHROP GRUMMAN CORPORATION

By: /s/Denise M. Peppard
Denise Peppard
Corporate Vice President and Chief
Human Resources Officer

NORTHROP GRUMMAN

ELECTRONIC SYSTEMS EXECUTIVE PENSION PLAN

(Amended and Restated Effective as of January 1, 2016)

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NORTHROP GRUMMAN
ELECTRONIC SYSTEMS EXECUTIVE PENSION PLAN
(Amended and Restated Effective as of January 1, 2016)

The Northrop Grumman Electronic Systems Executive Pension Plan (the "Plan") is hereby amended and restated effective as of January 1, 2016, except as otherwise provided. This restatement of the Plan amends the January 1, 2014 restatement and does include changes that apply to Grandfathered Amounts.

The Plan is intended to comply with Code section 409A and official guidance issued thereunder (except for Grandfathered Amounts). Notwithstanding any other provision of this Plan, this Plan shall be interpreted, operated and administered in a manner consistent with this intention.

Effective as of December 31, 2014, the accrued benefits for all Executives under this Plan shall be frozen. An Executive's benefit under this Plan will be based on his Executive Benefit Service and his Average Annual Compensation as of December 31, 2014, or at such earlier date that the Participant ceases to be eligible for this Plan, less the applicable offsets, determined on December 31, 2014, or such earlier applicable date. An Executive's service after December 31, 2014 will be considered for purposes of his eligibility, his vesting status, his early retirement eligibility, and calculating the early retirement reductions related to his frozen benefit.

ARTICLE 1

Introduction

Section 1.01. Introduction. The Northrop Grumman Electronic Systems Executive Pension Plan is a supplemental pension plan that provides nonqualified deferred compensation for a select group of management or highly compensated employees.

Section 1.02. Effective Date. The Plan became effective March 1, 1996.

Section 1.03. Sponsor. The Plan sponsor is Northrop Grumman Corporation.

Section 1.04. Predecessor Plan. The Plan was established as a successor to the Westinghouse Executive Pension Plan, maintained by Westinghouse Electric Corporation ("Westinghouse") for the benefit of certain executive employees of the Westinghouse Electronic Systems Group as of February 29, 1996 who became employees of the Northrop Grumman Electronic Sensors & Systems Division as of March 1, 1996 as a result of the Westinghouse Acquisition, and certain other executive employees who may become employed by the Northrop Grumman Electronic Sensors & Systems Division on or after March 1, 1996. The Northrop Grumman Electronic Sensors & Systems Division became the Northrop Grumman Electronic Sensors & Systems Sector effective August 24, 1998.

Section 1.05. 2001 Reorganization. Effective as of the 2001 Reorganization Date in (d), the corporate structure of Northrop Grumman Corporation and its affiliates was modified. Effective as of the Litton Acquisition Date in (e), Litton Industries, Inc. was acquired and became a subsidiary of the Northrop Grumman Corporation (the "Litton Acquisition").

(a) The former Northrop Grumman Corporation was renamed Northrop Grumman Systems Corporation. It became a wholly-owned subsidiary of the new parent of the reorganized controlled group.

(b) The new parent corporation resulting from the restructuring is called Northrop Grumman Corporation. All references in this Plan to the former Northrop Grumman Corporation and its Board of Directors now refer to the new parent corporation bearing the same name and its Board of Directors.

(c) As of the 2001 Reorganization Date, the new Northrop Grumman Corporation became the sponsor of this Plan, and its Board of Directors assumed authority over this Plan.

(d) 2001 Reorganization Date. The date as of which the corporate restructuring described in (a) and (b) occurred.

(e) Litton Acquisition Date. The date as of which the conditions for the completion of the Litton Acquisition were satisfied in accordance with the Amended and Restated Agreement and Plan of Merger Among Northrop Grumman Corporation, Litton Industries, Inc., NNG, Inc., and LII Acquisition Corp.

ARTICLE II

Definitions

Capitalized terms which are defined in the ES Pension Plan will have the same meanings in this Plan unless otherwise expressly stated. In addition, the following terms when used and capitalized will have the following meanings:

Section 2.01. Affiliated Companies. The Company and any other entity related to the Company under the rules of section 414 of the Code. The Affiliated Companies include Northrop Grumman Corporation and its 80%-owned subsidiaries and may include other entities as well.

Section 2.02. Annual Incentive Programs. See Article 6.

Section 2.03. Average Annual Compensation. See Article 6.

Section 2.04. Board. Board means the Board of Directors of Northrop Grumman Corporation, or its delegate.

Section 2.05. Code. The Internal Revenue Code of 1986, as amended, and as it may be amended.

Section 2.06. Committee. A committee of not less than three members appointed by the Board with responsibility for the general administration of the Plan. The Committee is the "plan administrator" under ERISA.

Section 2.07. Company. Northrop Grumman Corporation.

Section 2.08. Defined Contribution Plan. A defined contribution plan within the meaning of ERISA § 3(34), but not including:

(a) the Northrop Grumman Electronic Systems Savings Program or any similar program of a Participating Company or a Designated Entity or

(b) any amount received pursuant to a cash or deferred arrangement (as that term is defined in the Code) maintained by a Participating Company or a Designated Entity.

Section 2.09. Designated Entity. Designated Entity means an Affiliated Company or other entity that has been and is still designated by the Committee as participating in the Plan.

Section 2.10. ERISA. The Employee Retirement Income Security Act of 1974, as amended, and as it may be amended.

Section 2.11. ES Pension Plan. The Northrop Grumman Electronic Systems Pension Plan, formerly known as the ESSD Pension Plan.

Section 2.12. Executive. Executive means an individual who satisfies (a) and (b) and is not excluded by (c) or (d):

(a) An Employee who is employed by ES (or by a Participating Company, Designated Entity, or other Affiliated Company) in a position that is determined by the

Company's Chief Executive Officer or Vice President and Chief Human Resources and Administrative Officer to be eligible as an Executive position under this Plan based on the duties and responsibilities of the position.

(b) The Employee has been notified by the Committee in writing that he or she is eligible for benefits under the Plan.

(c) No Employee may receive benefits under this Plan if he or she is currently accruing supplemental benefits under any other nonqualified deferred compensation plan, contract, or arrangement maintained by the Affiliated Companies or to which the Affiliated Companies contribute with the exception of the Officers Supplemental Executive Retirement Program under the Northrop Grumman Supplemental Plan 2.

(d) Notwithstanding any provision of the Plan to the contrary, effective as of July 1, 2003, no Employee will first become eligible to participate in the Plan or otherwise receive credit for service or compensation for purposes of calculating a benefit under the Plan unless the Employee was classified as an Executive eligible to participate in the Plan before that date. Executives that terminate employment and are later rehired into positions that are determined to be eligible as Executive positions under the Plan will be eligible to resume participation in the Plan and will be subject to Appendix B.

Section 2.13. Executive Benefit Service. See Article 6.

Section 2.14. Executive Pension Base. See Article 6.

Section 2.15. Executive Pension Supplement. The pension calculated pursuant to Articles 4 and 5 of this Plan. There will be no Executive Pension Supplement payable if the Executive's Qualified Plan Benefit equals or exceeds his or her Executive Pension Base.

Section 2.16. Grandfathered Amounts. Plan benefits that were earned and vested as of December 31, 2004 within the meaning of Code section 409A and official guidance thereunder.

Section 2.17. Key Employee. An employee treated as a "specified employee" under Code section 409A(a)(2)(B)(i) of the Company or the Affiliated Companies (i.e., a key employee (as defined in Code section 416(i) without regard to paragraph (5) thereof)) if the Company's or an Affiliated Company's stock is publicly traded on an established securities market or otherwise. The Company shall determine in accordance with a uniform Company policy which Executives are Key Employees as of each December 31 in accordance with IRS regulations or other guidance under Code section 409A, provided that in determining the compensation of individuals for this purpose, the definition of compensation in Treas. Reg. § 1.415(c)-2(d)(3) shall be used. Such determination shall be effective for the twelve (12) month period commencing on April 1 of the following year.

Section 2.18. Maximum Contribution. An Employee will be deemed to have made the Maximum Contribution if he or she has made the contributions under (a) and (b), as interpreted under (c):

(a) During such time as the Employee was eligible to participate in the ES Pension Plan and the Westinghouse Pension Plan, he or she contributed the maximum amount the

Employee was permitted to contribute under those plans, and

(b) During such time as the Employee was employed by a Designated Entity (which includes for this purpose a "Designated Entity" under the Westinghouse Plan during periods before the Westinghouse Acquisition),

(1) The Employee contributed the maximum amount he or she was permitted to contribute, if any, to that Designated Entity's defined benefit pension or Defined Contribution Plan, if any, and

(2) The Employee paid to the Company (or to Westinghouse, before the Westinghouse Acquisition) an amount of each of his or her annual incentive compensation awards based on the maximum ES Pension Plan contribution formula (or Westinghouse Pension Plan contribution formula, as appropriate) applied to 50% of his or her awards. This payment is pre-tax and is made by a deferral election entered into prior to the year in which the annual incentive compensation award is determined and paid.

(c) This Plan is intended as essentially a continuation of the Westinghouse Plan (see Appendix C). Accordingly, this Section is to be interpreted as requiring an Executive to have made the Maximum Contribution not only under this Plan but also under the Westinghouse Plan.

Section 2.19. Participating Company. Any of the "Participating Companies" under the ES Pension Plan.

Section 2.20. Payment Date. The 1st of the month coincident with or following the later of (a) the date the Executive attains age 55, or (b) the date the Executive Separates from Service.

Section 2.21. Pension Plan and Pension Plans. Any of the following:

- (a) The Northrop Grumman Retirement Plan
- (b) The Northrop Grumman Retirement Plan – Rolling Meadows Site
- (c) The Northrop Grumman Retirement Value Plan (effective as of January 1, 2000)
- (d) The Northrop Grumman Electronics Systems – Space Division Salaried Employees' Pension Plan (effective as of the Aerojet Closing Date)
- (e) The Northrop Grumman Electronics Systems – Space Division Union Employees' Pension Plan (effective as of the Aerojet Closing Date)

"Aerojet Closing Date" means the Closing Date specified in the April 19, 2001 Asset Purchase Agreement by and Between Aerojet-General Corporation and Northrop Grumman Systems Corporation.

Section 2.22. Plan. The Northrop Grumman Electronic Systems Executive Pension Plan.

Section 2.23. Qualified Plan Benefit.

(a) The Qualified Plan Benefit is equal to the sum of:

- (1) the annual amount of pension the Executive has accrued under the ES Pension Plan and any applicable defined benefit pension plan of a Designated Entity based on Benefit Service accumulated up to the earlier of the Executive's actual retirement date or death;
- (2) the amount the Executive is entitled to receive on a life annuity basis for retirement under any applicable Defined Contribution Plan of a Designated Entity;
- (3) in any case where service included in the Executive's Vesting Service also entitles that Executive to benefits under one or more retirement plans (whether a defined benefit or Defined Contribution Plan or both) of another company, the amount the Executive is entitled to receive on a life annuity basis for retirement from those plans; and
- (4) the amount of any "Qualified Plan Benefits" taken into account under the Westinghouse Plan (or which would have been taken into account, but for the Westinghouse Acquisition) with respect to plans that were not acquired by the Affiliated Companies as part of the Westinghouse Acquisition;

provided, the method of benefit measurement, in the case of (2), (3) and (4) above, will be on the basis of procedures determined by the Committee on a plan-by-plan basis.

(b) The Qualified Plan Benefit does not include any early pension retirement supplement.

(c) The term Qualified Plan Benefit will also include amounts accrued under an excess benefit plan or other similar arrangement in which the Executive is a participant.

Section 2.24. Retirement Eligible. An Executive is Retirement Eligible if he or she is accruing Vesting Service and:

- (a) has attained age 65 and completed five or more years of Vesting Service;
- (b) has attained age 60 and completed 10 or more years of Vesting Service;
- (c) has attained age 58 and completed 30 or more years of Vesting Service; or

(d) has satisfied the requirements for an immediate pension under the Special Retirement Benefit provisions of the ES Pension Plan.

Section 2.25. Separation from Service or Separates from Service. A "separation from service" within the meaning of Code section 409A.

Section 2.26. Westinghouse. Westinghouse Electric Corporation.

Section 2.27. Westinghouse Acquisition. The acquisition by Northrop Grumman Corporation of the Electronic Systems Group of Westinghouse effective March 1, 1996.

Section 2.28. Westinghouse Plan. The Westinghouse Executive Pension Plan, as it existed from time to time.

ARTICLE 3

Qualification for Benefits; Mandatory Retirement

Section 3.01. Qualification for Benefits. Subject to Article 8 and other applicable provisions of the Plan, if any, each Executive will be entitled to the benefits of this Plan on separation from service from a Participating Company, a Designated Entity, or any other Affiliated Company, provided that such Executive meets the following four conditions:

(a) He or she has been employed in a position that meets the definition of Executive for five or more continuous years immediately preceding the earlier of the Executive's actual retirement date or the Executive's Normal Retirement Date. For purposes of this five-year requirement (but not for purposes of determining Executive Benefit Service under Section 6.05), the General Manager of ES and the Vice President of Human Resources for ES may determine that one or more years of an Employee's service with an Affiliated Company prior to the Employee's transfer to ES shall be counted as having been in an Executive position.

(b) He or she has made the Maximum Contribution during each year of Vesting Service from the date he or she first became an Executive until the earliest of his or her date of death, actual retirement date or Normal Retirement Date;

(c) He or she is a participant in the ES Pension Plan or in the defined benefit plan or Defined Contribution Plan of a Designated Entity, if any;

(d) He or she is Retirement Eligible on the date of voluntary or involuntary separation from service from a Participating Company or a Designated Entity or, in the case of a Surviving Spouse benefit, satisfies the requirements for benefits under Article 5 of the Plan.

An Executive who meets the following requirements will be treated as "Retirement Eligible" even though not meeting the Plan's definition of this term:

(1) The Executive is involuntarily terminated without cause, or terminated due to a divestiture of his business unit on or after December 1, 2010,

(2) The Executive has attained age 53 with 10 or more years of Early Retirement Eligibility Service, or 75 points (age plus Years of Credited Service) at date of termination, and

(3) The Executive is actively accruing benefits at date of termination and has satisfied both the rule of Section 3.01(a) and the rule of Section 3.01(b) on the date of termination.

Benefits that become payable based on the Executive's termination meeting the three requirements above shall be subject to Code Section 409A and payable in accordance with the terms of Appendix E. Reduction factors will apply in cases where benefit payments commence prior to age 58 (if the Executive has 30 or more years of Vesting Service) or age 60 (if the Executive has 10 - 29 years of Vesting Service). The reduction will be an actuarial one from age 58 or 60 (whichever age applies) to the actual payment commencement date. The reduction factor will be based on the actuarial assumptions used for determining lump sum actuarial equivalents in the Northrop Grumman Cash Balance Plan Program.

Section 3.02. Mandatory Retirement. Pursuant to this Plan, the Company will be entitled, at its option, to retire any Executive who has attained age 65 and who, for the two-year period immediately before his or her retirement, has participated in this Plan, if such Executive is entitled to an immediate nonforfeitable annual retirement benefit from a pension, profit-sharing, savings or deferred compensation plan, or any combination of such plans, of a Participating Company or any Affiliated Company, which equals, in the aggregate, at least \$44,000. The calculation of the \$44,000 (or greater) amount will be performed in a manner consistent with 29 U.S.C. § 631(c)(2).

Section 3.03. Certain Transfers. Except as otherwise provided in (e) below, if an Executive transfers to a position with an Affiliated Company that is not covered by a Participating Company or Designated Entity:

(a) He or she will immediately cease to accrue Executive Benefit Service.

(b) He or she will continue to earn Vesting Service (for purposes of the Plan other than Executive Benefit Service) for periods of employment with the Affiliated Company.

(c) His or her Average Annual Compensation will include earnings as an employee from the Affiliated Company for periods after the transfer until his or her termination of employment with all Affiliated Companies.

(d) He or she may receive benefits under the Plan if he or she subsequently retires from the Company and satisfies the Plan's eligibility requirements.

(e) Effective as of July 1, 2003, if an Executive transfers to a position with an Affiliated Company that has been determined by the Company's Chief Executive Officer or Vice President and Chief Human Resources and Administrative Officer to be an eligible position under the Plan, (a)-(d) above will not apply and the Executive will continue to be classified as an

active participant for all purposes under the Plan until the Executive's separation from service from all Affiliated Companies.

ARTICLE 4

Calculation of Executive Pension Supplement

Section 4.01. In General. The Executive Pension Supplement for an Executive who meets the qualifications of Article 3 of the Plan retiring on an Early, Normal or Special Retirement Date will be calculated as described in Section 4.02(a) or (b).

Section 4.02. Amount.

(a) If the Executive

(1) has attained age 60 and completed 10 or more years of Vesting Service,

(2) has attained age 65, or

(3) has satisfied the eligibility requirements for an immediate pension under the "Special Retirement Benefit" provisions of the ES Pension Plan,

the Executive Pension Supplement is determined by subtracting the Executive's Qualified Plan Benefit that would be payable if he or she elected a Life Annuity Option (after any reduction for early retirement, if applicable) from his or her Executive Pension Base.

(b) If the Executive has not met the requirements of paragraph (a) above but has attained age 58 and completed 30 or more years of Vesting Service, the Executive Pension Supplement is determined by subtracting the Executive's Qualified Plan Benefit that would be payable if he or she elected a Life Annuity Option (before any reduction for retirement prior to age 60) from his or her Executive Pension Base.

(c) If the Executive has not met the requirements of paragraph (a) or (b) above but is deemed to be Retirement Eligible under Section 3.01(d) based on the circumstances of the Executive's termination, the Executive Pension Supplement is determined by subtracting the Executive's Qualified Plan Benefit projected to age 60 as a Life Annuity from his or her Executive Pension Base.

ARTICLE 5

Death in Active Service

Section 5.01. Eligibility For an Immediate Benefit. If an Executive dies in active service and, on his or her date of death, satisfies the requirements of the "Special Surviving Spouse Benefit" under the ES Pension Plan and satisfied the requirements of Section 3.01(b) and (c) of this Plan at the time of death, a Surviving Spouse benefit will also be payable under this

Plan if his or her Executive Pension Base exceeds his or her Qualified Plan Benefit. The requirement of Section 3.01(a) is waived.

Section 5.02. Calculation of Immediate Benefit. The amount of the immediate Surviving Spouse benefit under Section 5.01 will be the Executive Pension Supplement reduced in the same manner as though the benefit were a "Special Surviving Spouse Benefit" under the ES Pension Plan. For purposes of this Section, the Executive Pension Supplement will be calculated as follows:

- (a) If the Executive had attained age 60 or if the Executive had completed 30 years of Vesting Service, the Executive Pension Supplement would be calculated as described in Section 4.02(a);
- (b) Otherwise, the Executive Pension Supplement would be 80% of the difference between the Executive Pension Base and the unreduced Qualified Plan Benefit.

Section 5.03. Eligibility For a Deferred Benefit. If an Executive dies in active service who does not satisfy the requirements of Section 5.01 but who satisfies the requirements of the "Surviving Spouse Benefit" under the ES Pension Plan and satisfied the requirements of Section 3.01(b) and (c) of this Plan at the time of death, a Surviving Spouse benefit will also be payable under this Plan if his or her Executive Pension Base exceeds his or her Qualified Plan Benefit. The requirement of Section 3.01(a) is waived.

Section 5.04. Calculation of Deferred Benefit. The amount of the deferred Surviving Spouse benefit under Section 5.03 will be the Executive Pension Supplement reduced in the same manner as though the benefit were payable under the ES Pension Plan. For purposes of this paragraph, the Executive Pension Supplement will be calculated by subtracting the Executive's Qualified Plan Benefit (before any reductions) from his or her Executive Pension Base.

ARTICLE 6

Executive Pension Base

Section 6.01. In General. This Article sets forth the rules for determining a Participant's Executive Pension Base.

Section 6.02. Executive Pension Base. The Executive Pension Base = (a) x (b) x (c) as follows:

- (a) 1.47%;
- (b) Average Annual Compensation;
- (c) the number of years of Executive Benefit Service accrued to the earliest of:
 - (1) the Executive's actual retirement date, or
 - (2) the date of the Executive's death.

Section 6.03. Average Annual Compensation. Average Annual Compensation = (a) + (b) as follows:

(a) 12 times the average of the five highest of the Executive's December 1 monthly base salaries during the 10-year period immediately preceding the earliest of:

- (1) the Executive's date of death, or
- (2) the Executive's actual retirement date.

(b) the average of the Executive's five highest annual incentive compensation awards paid under the Annual Incentive Programs or equivalent annual program or programs during the 10-year period ending with the earliest of:

- (1) the year of the Executive's death, or
- (2) the year of the Executive's actual retirement date.

(c) No earnings before March 1, 1996 are taken into account under this Article.

(d) Notwithstanding the foregoing, for Executives terminating employment with the Affiliated Companies after 2004, the averages in subsection (a) and (b) above shall be based on salaries and annual incentive compensation awards paid in 1995 or later and shall not be limited to the 10-year periods described in subsections (a) and (b). All amounts accrued as a result of this change shall be subject to Code section 409A.

(e) Average Annual Compensation normally includes only pay earned while an Executive. But see Section 3.03.

(f) The following shall not be considered as compensation for purposes of determining the amount of any benefit under the Plan:

(1) any payment authorized by the Company's Compensation Committee that is (a) calculated pursuant to the method for determining a bonus amount under the Annual Incentive Programs (AIP) for a given year, and (b) paid in lieu of such bonus in the year prior to the year the bonus would otherwise be paid under the AIP, and

(2) any award payment under the Northrop Grumman Long-Term Incentive Cash Plan.

Section 6.04. Annual Incentive Programs. The Annual Incentive Programs are the Timely Awards Program, Management Achievement Plan, the Incentive Compensation Plan, the Incentive Management Achievement Plan and the Performance Achievement Plan of the Company.

Section 6.05. Executive Benefit Service. An Executive's Executive Benefit Service is determined under (a) or (b) as appropriate, and subject to (c) and (d):

(a) Executive Benefit Service is an Executive's total years of Vesting Service under the ES Pension Plan if:

- (1) the Executive was making the Maximum Contribution during each of those years; or
- (2) the use of the Executive Buy Back process has been authorized by the Committee and the Executive:
 - (A) was making the Maximum Contribution during each of those years after the date he or she first became an Executive and
 - (B) has complied with the provisions of the Executive Buy Back process (as set forth in Appendix A) as to those years prior to his or her first becoming an Executive.
- (b) Otherwise, Executive Benefit Service is the Executive's period of Vesting Service during which he or she made the Maximum Contribution.
- (c) No service before March 1, 1996 is taken into account under this Article.
- (d) Notwithstanding the foregoing, for an Executive terminating employment with the Affiliated Companies after 2004, Executive Benefit Service accruals after 2004 equal (1) minus (2) below:
 - (1) Elapsed time while the Executive was making the Maximum Contributions, including time purchased under the Executive Buy Back process (as set forth in Appendix A);
 - (2) Executive Benefit Service accrued as of December 31, 2004.All amounts accrued as a result of this change shall be subject to Code section 409A.

ARTICLE 7

Payment of Benefits

Section 7.01. Limitation on Benefits. No benefits will be payable under this Plan to any Executive whose employment terminates for any reason other than death prior to becoming Retirement Eligible.

Section 7.02. Normal Form and Commencement of Benefits. This Section only applies to Grandfathered Amounts. The Executive Pension Supplement will be paid for life in monthly installments, each equal to 1/12th of the annual amount determined in Article 4 or 5, whichever is applicable.

- (a) The Committee will determine the form and commencement of benefit payments in its sole discretion.

(b) The Committee will choose among the various forms of payment, other than the lump sum, then available under the ES Pension Plan, subject to the same reductions or other provisions that apply to the elected form of payment under the ES Pension Plan.

(c) No payments may commence under this Plan until payments to the Executive or Surviving Spouse have commenced under the ES Pension Plan or other tax-qualified defined benefit plan or Defined Contribution Plan maintained by a Participating Company or Designated Entity.

See Appendix D and Appendix E for the rules that apply to other benefits earned under the Plan.

Section 7.03. Guaranteed Benefit. This Section only applies to Grandfathered Amounts. Regardless of the form of payment elected by the Committee, after the Executive retires and begins receiving an Executive Pension Supplement, a minimum of 60 times the monthly payment he or she would have received on a life annuity basis is guaranteed.

See Appendix D and Appendix E for the rules that apply to other benefits earned under the Plan.

Section 7.04. Guaranteed Surviving Spouse Benefit. This Section only applies to Grandfathered Amounts. Once a Surviving Spouse Benefit determined under Sections 5.01 and 5.02 has commenced, a minimum of 60 times the monthly benefit payable to the Surviving Spouse is guaranteed. See Appendix D and Appendix E for distribution rules that apply to death benefits that are not Grandfathered Amounts

Section 7.05. Lump Sum Payments. This Section only applies to Grandfathered Amounts. An Executive who elects lump sum payments of all his or her nonqualified benefits under the Northrop Grumman Corporation Change-In-Control Severance Plan (effective August 1, 1996, as amended) or the Northrop Grumman Corporation March 2000 Change-In-Control Severance Plan (collectively, the "CIC Plans") is entitled to have his or her Executive Pension Supplement paid as a lump sum calculated under the terms of the applicable CIC Plan. Otherwise, Executive Pension Supplement payments are governed by the general provisions of this Article, which do not provide for lump sum payments.

Northrop Grumman Corporation may, in its sole discretion, amend or eliminate any provision of the Plan with respect to lump sum distributions at any time. This applies whether or not a Participant has already made a lump sum election.

See Appendix D and Appendix E for the rules that apply to other benefits earned under the Plan

Section 7.06. Mandatory Cashout. Notwithstanding any other provisions in the Plan, Executives with Grandfathered Amounts who have not commenced payment of such benefits prior to January 1, 2008 will be subject to the following rules:

(a) Post-2007 Terminations. Executives who have a complete termination of employment with the Affiliated Companies after 2007 will receive a lump sum distribution of the present value of their Grandfathered Amounts within two months of such termination (without interest), if such present value is below the Code section 402(g) limit in effect at the termination.

(b) Pre-2008 Terminations. Executives who had a complete termination of employment with the Affiliated Companies before 2008 will receive a lump sum distribution of the present value of their Grandfathered Amounts within two months of the time they commence payment of their underlying qualified pension plan benefits (without interest), if such present value is below the Code section 402(g) limit in effect at the time such payments commence.

For purposes of calculating present values under this Section, the actual assumptions and calculation procedures for lump sum distributions under the Northrop Grumman Pension Plan shall be used.

Section 7.07. Optional Payment Forms. Executives with Grandfathered Amounts shall be permitted to elect (a) or (b) below:

(a) To receive their Grandfathered Amounts in any form of distribution available under the Plan at October 3, 2004, provided that form remains available under the underlying qualified pension plan at the time payment of the Grandfathered Amounts commences. The conversion factors for these distribution forms will be based on the factors or basis in effect under this Plan on October 3, 2004.

(b) To receive their Grandfathered Amounts in any life annuity form not included in (a) above but included in the underlying qualified pension plan distribution options at the time payment of the Grandfathered Amounts commences. The conversion factors will be based on the following actuarial assumptions:

Interest Rate: 6%

Mortality Table: RP-2000 Mortality Table projected 15 years for future standardized cash balance factors

Section 7.08. Rehires. In the event that an Executive retires or otherwise ceases to be an Employee of a Participating Company or a Designated Entity and is later rehired by one of those entities, the provisions of Appendix B will apply.

Section 7.09. Special Tax Distribution. On the date an Executive's retirement benefit is reasonably ascertainable within the meaning of IRS regulations under Code section 3121(v)(2), an amount equal to the Executive's portion of the FICA tax withholding will be distributed in a single lump sum payment. This payment will be based on all benefits under the Plan, including Grandfathered Amounts. This payment will reduce the Executive's future benefit payments under the Plan on an actuarial basis.

ARTICLE 8

Conditions to Receipt of Executive Pension Supplement

Section 8.01. Non-Competition Condition. Payments of benefits under this Plan to Executives are subject to the condition that the recipient will not compete with the Company.

(a) Competition for this purpose means engaging directly or indirectly in any business which is at the time competitive with any business, part of a business, or activity then conducted by the Company, any of its subsidiaries or any other corporation, partnership, joint venture or other entity of which the Company directly or indirectly holds a 10% or greater interest (together, the "Affiliated Group") in the area in which such business, part of a business, or activity is then being conducted by the Affiliated Group.

(b) The Company's Compensation Committee or its delegate will, in its sole discretion, determine whether a breach of this non-competition condition has occurred. Such a determination may be made for up to one year following the date that the Company's Compensation Committee has actual knowledge of the circumstances that could constitute such a breach.

Section 8.02. Breach of Condition. Breach of the condition contained in Section 8.01 will be deemed to occur immediately upon an Executive's engaging in competitive activity.

(a) Payments suspended for breach of the condition will not be resumed whether or not the Executive terminates the competitive activity.

(b) A recipient will be deemed to be engaged in such a business indirectly if he or she is an employee, officer, director, trustee, agent or partner of, or a consultant or advisor to or for, a person, firm, corporation, association, trust or other entity which is engaged in such a business or if he or she owns, directly or indirectly, in excess of 5% of any such firm, corporation, association, trust or other entity.

Section 8.03. Waiver After 65. The ongoing condition of this Article will not apply to an Executive age 65 or older.

ARTICLE 9

Administration

Section 9.01. Committee. This Plan will be administered by the Committee. The Committee will have the right to make reasonable rules from time to time regarding the Plan. All such rules will be consistent with the policy provided by this Plan document. The Committee will have full discretion to interpret the Plan, and to resolve ambiguities and inconsistencies. The Committee's interpretations will in all cases be final and not be subject to appeal.

Section 9.02. Claims Procedures. The Company's standardized "Northrop Grumman Nonqualified Retirement Plans Claims and Appeals Procedures" shall apply in handling claims and appeals under this Plan.

Section 9.03. Trust. The Board may authorize the establishment of one or more trusts and the appointment of a trustee or trustees ("Trustee") to hold any and all assets of the Plan in trust. The Board may delegate this power to the Committee.

ARTICLE 10

Modification or Termination

Section 10.01. Amendment and Plan Termination. The Company may, in its sole discretion, terminate, suspend or amend this Plan at any time or from time to time, in whole or in part for any reason. This includes the right to amend or eliminate any of the provisions of the Plan with respect to lump sum distributions, including any lump sum calculation factors, whether or not an Executive has already made a lump sum election. Notwithstanding the foregoing, no amendment or termination of the Plan shall reduce the amount of an Executive's accrued benefit under the Plan as of the date of such amendment or termination.

No amendment of the Plan shall apply to the Grandfathered Amounts, unless the amendment specifically provides that it applies to such amounts. The purpose of this restriction is to prevent a Plan amendment from resulting in an inadvertent "material modification" to the Grandfathered Amounts.

ARTICLE 11

Miscellaneous

Section 11.01. Benefits Not Assignable.

(a) No Executive, former Executive or Surviving Spouse shall have the right to anticipate, alienate, sell, transfer, assign, pledge, encumber, or otherwise subject to lien any of the benefits provided under this Plan. Such rights may not be subject to the debts, contracts, liabilities, engagements or torts of the Executive, former Executive or Surviving Spouse of an Executive.

(b) Notwithstanding the foregoing, all or a portion of an Executive's Plan benefits may be paid to another person as specified in a domestic relations order that the Committee determines is qualified (a "Qualified Domestic Relations Order"). For this purpose, a Qualified Domestic Relations Order means a judgment, decree, or order (including the approval of a settlement agreement) which is:

- (1) issued pursuant to a State's domestic relations law;
- (2) relates to the provision of child support, alimony payments or marital property rights to a spouse, former spouse, child or other dependent of the Executive;
- (3) creates or recognizes the right of a spouse, former spouse, child or other dependent of the Executive to receive all or a portion of the Executive's benefits under the Plan; and

(4) meets such other requirements established by the Committee.

The Committee shall determine whether any document received by it is a Qualified Domestic Relations Order. In making this determination, the Committee may consider the rules applicable to "domestic relations orders" under Code section 414(p) and ERISA section 206(d), and such other rules and procedures as it deems relevant.

Section 11.02. Facility of Payment. If the Committee deems any person entitled to receive any payment under the Plan incapable of receiving it by reason of age, illness, infirmity, mental incompetency or incapacity of any kind, the Committee may, in its discretion, direct that payment be made in any one or more of the following manners:

- (a) Applying the amount directly for the comfort, support and maintenance of the payee;
- (b) Reimbursing any person for any such support supplied by any other person to the payee;
- (c) Paying the amount to a legal representative or guardian or any other person selected by the Committee on behalf of the payee; or
- (d) Depositing the amount in a bank account to the credit of the payee.

Section 11.03. Committee Rules. Payment of benefits will be made in accordance with the rules and procedures of the Committee.

Section 11.04. Limitation on Rights. The Company, in adopting this Plan, will not be held to create or vest in any Executive or any other person any interest, pension or benefits other than the benefits specifically provided herein, or to confer upon any Executive the right to remain in the service of the Company.

Section 11.05. Benefits Unsecured. Any assets purchased by the Company to provide benefits under this Plan will at all times remain subject to the claims of general creditors of the Company and any Executive, former Executive or Surviving Spouse of an Executive participating in the Plan has only an unsecured promise to pay benefits from the Company.

Section 11.06. Governing Law. To the extent not preempted by federal law, the law of the State of Maryland will govern the construction and administration of the Plan.

Section 11.07. Severability. If any provision of this Plan or its application to any circumstance or person is held to be invalid by a court of competent jurisdiction, the remainder of the Plan and the application of such provision to other circumstances or persons will not be affected thereby.

Section 11.08. Expanded Benefits. The Board or the Compensation Committee of the Board may, from time to time and without notice, by resolution of the Board or of the Compensation Committee of the Board, authorize the payment of benefits or expand the benefits otherwise payable or to be payable to any one or more individuals. Notwithstanding the foregoing, this Section 11.08 shall not apply to any benefits under the Plan that are not Grandfathered Amounts.

Section 11.09. Plan Costs. Benefits payable under the Plan and any expenses in connection therewith will be paid by the Company to the extent they are not available to be paid from any trust fund established by the Company to help defray the costs of providing Plan benefits.

Section 11.10. Termination of Participation. Participation in the Plan will terminate:

- (a) in the case of a nonvested Executive, upon separation from service with a Participating Company or Designated Entity;
- (b) in the case of a vested Executive, when payment of all amounts due with respect to the Executive are paid, or purported to be paid, by the Plan.

Section 11.11. Transfer of Liabilities to HII. Northrop Grumman Corporation distributed its interest in Huntington Ingalls Industries, Inc. ("HII") to its shareholders on March 31, 2011 (the "HII Distribution Date"). Pursuant to an agreement between Northrop Grumman Corporation and HII, on the HII Distribution Date certain employees and former employees of HII ceased to participate in the Plan and the liabilities for these participants' benefits under the Plan were transferred to HII. On and after the HII Distribution Date, the Company and the Plan, and any successors thereto, shall have no further obligation or liability to any such participant with respect to any benefit, amount, or right due under the Plan.

ARTICLE 12

Change in Control

Section 12.01. Definition. The term "Change in Control" means the occurrence of one or more of the following events:

(a) There will be consummated:

- (1) Any consolidation or merger of the Company in which the Company is not the continuing or surviving corporation or pursuant to which shares of the Company's common stock would be converted into cash, securities or other property, other than a merger of the Company in which the holders of the Company's common stock immediately prior to the merger

have the same proportionate ownership of common stock of the surviving corporation immediately after the merger; or

(2) Any sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all, or substantially all, of the assets of the Company; or

(b) The stockholders of the Company approve any plan or proposal for the liquidation or dissolution of the Company; or

(c) (1) Any person (as such term is defined in section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), corporation or other entity will purchase any common stock of the Company (or securities convertible into Company common stock) for cash, securities or any other consideration pursuant to a tender offer or exchange offer, unless, prior to the making of such purchase of Company common stock (or securities convertible into Company common stock), the Board will determine that the making of such purchase will not constitute a Change in Control; or

(2) Any person (as such term is defined in section 13(d) of the Exchange Act), corporation or other entity (other than the Company or any benefit plan sponsored by the Affiliated Companies) will become the "beneficial owner" (as such term is defined in Rule 13d-3 under the Exchange Act:), directly or indirectly, of securities of the Company representing twenty percent or more of the combined voting power of the Company's then outstanding securities ordinarily (and apart from any rights accruing under special circumstances) having the right to vote in the election of directors (calculated as provided in Rule 13d-3(d) in the case of rights to acquire any such securities), unless, prior to such person so becoming such beneficial owner, the Board will determine that such person so becoming such beneficial owner will not constitute a Change in Control; or

(d) At any time during any period of two consecutive years, individuals who at the beginning of such period constituted the entire Board will cease for any reason to constitute at least a majority thereof, unless the election or the nomination for election of each new director during such two-year period was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such two-year period.

Section 12.02. Vesting and Funding Rules. Notwithstanding any other provision of the Plan, upon a Change in Control, as defined above, all Executives will be deemed fully vested under this Plan, but only such vesting as to the otherwise applicable five-year service requirement. In addition, upon a Change in Control, but only under circumstances where the successor, surviving or parent company of Northrop Grumman Corporation or the successor plan sponsor or any successor thereto, if any, does not agree to assume the obligation to provide benefits under this Plan as they become due and payable, then an amount sufficient to fund all unpaid benefits and any Surviving Spouse benefits payable under this Plan will be paid immediately by the Company to a Trustee pursuant to a Trust Agreement for the payment of such benefits at the earliest date available in accordance with the provisions of the Plan and on such terms as the committee composed of the Company's Chief Executive Officer, Chief Financial Officer and General Counsel, will deem appropriate (including a direction to the Trustee to pay

immediately all benefits that are Grandfathered Amounts on a present value basis and/or such other terms as they may deem appropriate). Notwithstanding this funding, the Company will be obligated to pay benefits to Executives and to Surviving Spouses of Executives to the extent such funding proves to be insufficient. To the extent such funding proves to be more than sufficient, any excess will revert to the Company.

Section 12.03. Special Retirement Provisions. Upon a Change in Control, for any Executive in the Plan who is involuntarily separated and who is not then eligible for a Normal or Special Retirement Pension under the ES Pension Plan, such separation will be deemed to be a separation due to a "Permanent Job Separation", and the Special Retirement Pension provisions under the ES Pension Plan will be used for purposes of determining eligibility and payment of benefits to such Executive under the Plan, provided that distribution of amounts that are not Grandfathered Amounts will still be controlled by Appendix D and Appendix E.

Section 12.04. Calculation of Present Value. The present value of benefits payable by the Trustee will be calculated for specific groups of Executives at the time of the Change in Control as follows:

(a) The present value of the benefits payable from this Plan to Executives who have retired at the time of the Change in Control (as well as benefits payable from this Plan to any Surviving Spouse of an Executive) will be calculated by using the PBGC immediate discount rate established and in effect for the beginning of the calendar year in which the Change in Control occurs.

(b) The present value of the benefits payable from this Plan to Executives who are eligible to retire under the terms of this Plan at the time of the Change in Control will be calculated by using the PBGC immediate discount rates established and in effect at the beginning of the calendar year in which the Change in Control occurs, assuming a pension which is immediately payable at the time of the Change in Control.

(c) The present value of the benefits payable from this Plan to Executives who have completed at least 30 years of service with a Participating Company or a Designated Entity but have not yet attained age 58 at the time of the Change in Control will be calculated by using the PBGC deferred discount rates established and in effect for the beginning of the calendar year in which the Change in Control occurs, assuming a pension which is payable at age 58.

(d) The present value of benefits payable from this Plan to Executives who have completed at least 10 years of service with a Participating Company or a Designated Entity but less than 30 years of service at the time of the Change in Control, but have not yet attained age 60 at the time of the Change in Control, will be calculated by using the PBGC deferred discount rates established and in effect for the beginning of the calendar year in which the Change in Control occurs, assuming a pension which is payable at age 60.

(e) The present value of benefits payable from this Plan to Executives who have completed less than 10 years of service with a Participating Company or a Designated Entity at the time of the Change in Control will be calculated by using the PBGC deferred discount rates

established and in effect for the beginning of the calendar year in which the Change in Control occurs, assuming a pension which is payable at age 65.

Section 12.05. Calculation of Offset. In calculating the benefit payable to each Executive, any offset for the ES Pension Plan or other plan in which the Executive participates, will be based upon the last official pension file data available, adjusted to the date of any Change in Control by assuming that the most recent salary reflected in the pension file remains constant.

Section 12.06. Limitation on Amendment, Suspension and Termination. Notwithstanding any provision of this Plan, this Plan may not be:

- (a) Amended such that future benefits would be reduced;
- (b) Suspended; or
- (c) Terminated;

as to the further accrual of benefits, for a period of 24 months following a Change in Control; and as to the payment of benefits, at any time prior to the last payment, determined in accordance with the provisions of this Plan, to each Executive, former Executive receiving benefits under the Plan, or eligible spouse.

* * *

IN WITNESS WHEREOF, this Amendment and Restatement is hereby executed by a duly authorized officer on this 22nd day of December, 2015.

NORTHROP GRUMMAN CORPORATION

By: /s/ Denise M. Peppard
Denise M. Peppard
Corporate Vice President and Chief Human Resources Officer

APPENDIX A

Executive Buyback

Section A.01. Introduction. The Executive Buy Back process permits newly eligible Executives to "buy back" past years of Executive Benefit Service under the Plan for periods of time during which they did not make the Maximum Contribution.

Section A.02. Buy Back Offer. If an Employee did not make the Maximum Contribution during each of the years of his or her Vesting Service prior to the time he or she first became an Executive, the Employee will be permitted to pay make-up payments of Maximum Contributions in order to "buy back" his or her non-contributory years of service.

(a) The make-up payments required are the Maximum Contributions that would have been payable during the 10 years prior to the date he or she first became an Executive (or such lesser period from the date the Employee was employed by a Participating Company or a Designated Entity) plus compounded interest on those amounts.

(b) This Plan is intended as essentially a continuation of the Westinghouse Plan (see Appendix C). Accordingly, this Section is to be interpreted as requiring an Executive to make up Maximum Contributions not only for his or her periods of participation under this Plan but also Maximum Contributions that would have been due under the Westinghouse Plan. The terms of (a) will be interpreted to include the corresponding terms under the Westinghouse Plan and the 10-year period will include periods before the Westinghouse Acquisition.

Section A.03. One-Time Opportunity. Upon qualifying as an Executive, an Executive will be offered an Executive Buy Back opportunity at the time he or she first becomes an Executive (or when this Appendix first becomes effective, if later). The actual terms of the Executive Buy Back will be determined from time to time by the Committee. This election will be offered one time to the Executive and his or her decision whether or not to "buy back" will be irrevocable.

Section A.04. Payment. Executive Buy Back payments are pre-tax and are made from compensation by deferral elections entered into prior to the year in which the compensation is determined and paid. Executive Buy Back payments will not be deposited into the ES Pension Plan trust and will not increase the Executive's Qualified Plan Benefit.

Section A.05. Refund of Buy Back Payment. If, at some point, an Employee is no longer an Executive or otherwise becomes ineligible to receive an Executive Pension Supplement, any Executive Buy Back payments the Employee has made (including any interest the Employee paid) plus any other amount as defined in Section 2.16(b)(2) in the definition of Maximum Contribution paid by the Employee to the Company will be refunded, with interest at such time as the Employee meets one of the following criteria:

(a) Termination or retirement from a Participating Company or a Designated Entity; or

(b) Death;

provided, however, no refund will be made if the Employee is an eligible Executive, whether or not the amount of his or her Executive Pension Supplement exceeds zero. All interest rates will be determined at the discretion of the Committee.

Any amounts that are refundable under this Section A.05 that are not Grandfathered Amounts will be paid in a lump sum upon the Executive's Separation from Service, subject to the six-month delay rule in Section E.02.

Section A.06. Effective Date. The provisions of this Appendix permitting Buy Backs will become effective on a date specified by resolution of the Committee specifically citing this Section.

APPENDIX B

Rehired Executives

Section B.01. Retired Executives Rehired as Executives. If an Executive who retired from a Participating Company or a Designated Entity and who received or is receiving an Executive Pension Supplement as a lump sum or on a monthly basis is rehired in an Executive position by a Participating Company, Designated Entity, or any other Affiliated Company, the following provisions apply:

(a) Monthly Payments: For an Executive with a monthly Executive Pension Supplement:

(1) The Plan will suspend all Executive Pension Supplement payments that are Grandfathered Amounts;

(2) If, but only if, the Executive is Retirement Eligible at the time of subsequent actual retirement:

(A) Previous years of Vesting Service and Executive Benefit Service accrued prior to the Executive's retirement will be restored; and

(B) The Executive's Executive Pension Supplement will be recalculated in accordance with the Plan at his or her subsequent actual retirement date as long as the Executive then meets all Plan benefit qualification requirements;

(3) The Executive, having previously met the requirement of five years of continuous service as an Executive prior to his or her first retirement, need not again meet that requirement;

(4) The Executive's Average Annual Compensation will be computed without regard to the break in service, using zero for any periods during which the Executive was a retiree;

(5) If the Executive elected to take a lump sum Qualified Plan Benefit with respect to his or her initial retirement, then in any subsequent calculation of the Executive's Executive Pension Supplement, the Executive's Executive Pension Base will be reduced by both the Executive's Qualified Plan Benefit received at the time of the initial retirement and the Executive's Qualified Plan Benefit accrued from the date of rehire through the date of his or her subsequent retirement.

(6) If the Executive continued to receive payments that were not Grandfathered Amounts during the period of rehire, an actuarial reduction will apply at his subsequent termination.

(b) Lump Sums: For an Executive who received a lump sum Executive Pension Supplement and who is Retirement Eligible at the time of subsequent actual retirement:

- (1) Previous years of Vesting Service will be restored but not previous years of Executive Benefit Service;
- (2) The Plan will calculate the Executive's additional Executive Pension Supplement at his or her subsequent actual retirement date on the basis of years of service after the rehire in accordance with the Plan as the Executive then meets all Plan benefit qualification requirements;
- (3) The Executive, having previously met the requirement of five years of continuous service as an Executive prior to his or her first retirement, need not again meet that requirement;
- (4) The Executive's Average Annual Compensation will be computed without regard to the break in service, using zero for any periods during which the Executive was a retiree;
- (5) If the Executive elected a monthly Qualified Plan Benefit with respect to his or her initial retirement, then the Executive's Qualified Plan Benefit accrued from the date of rehire through the subsequent date of actual retirement will be subtracted from the Executive's Executive Pension Base in calculating the Executive's additional Executive Pension Supplement at his or her subsequent retirement.

Section B.02. Former Executives with Vested Pensions Rehired as Executives. If the employment of an Executive of a Participating Company or a Designated Entity who was eligible only for a vested pension under the relevant qualified defined benefit or Defined Contribution Plan, if any, was terminated and the Executive is rehired by a Participating Company, Designated Entity, or any other Affiliated Company, the following provisions apply:

- (a) Previous years of Vesting Service and Executive Benefit Service accrued prior to the Executive's termination of employment will be restored;
- (b) The Executive must meet the requirement of five years of continuous service as an Executive prior to a subsequent actual retirement, counting only years of service after the rehire;
- (c) Only base salary and incentive awards earned after the rehire will be used in computing Average Annual Compensation;
- (d) If the Executive elected to take his or her vested pension as a lump sum, in any calculation of an Executive Pension Supplement at actual retirement, the Executive's Executive Pension Base will be reduced by both the Executive's Qualified Plan Benefit at the time of the initial termination of employment and the Executive's Qualified Plan Benefit accrued from the date of rehire through the date of actual retirement.

Section B.03. Retired Executives Rehired in Non-Executive Positions. If an Executive who retired from a Participating Company or a Designated Entity and who received or is

receiving an Executive Pension Supplement as a lump sum or on a monthly basis is rehired by a Participating Company, Designated Entity, or any other Affiliated Company in a non-Executive position, the following provisions apply:

(a) For a former Executive who was receiving a monthly Executive Pension Supplement:

(1) The Plan will suspend all Executive Pension Supplement payments that are Grandfathered Amounts;

(2) If, but only if, the former Executive is still Retirement Eligible at the time of subsequent actual retirement, the Plan will recommence Executive Pension Supplement payments that were suspended at the time of the Executive's subsequent actual retirement without recalculation of amount;

(3) At subsequent actual retirement, the former Executive may receive any form of payment of his or her Executive Pension Supplement then permitted under the Plan, as selected by the Committee.

(b) For a former Executive who received his or her Executive Pension Supplement as a lump sum, no further benefits will be paid by the Plan.

Section B.04. Events That Span Westinghouse Acquisition. This Plan is intended as essentially a continuation of the Westinghouse Plan (see Appendix C) and this Appendix is to be interpreted accordingly.

(a) Reductions for payments of Qualified Plan Benefits will be interpreted to include reductions for payments of similar benefits under Westinghouse plans.

(b) Determination of the form of Qualified Plan Benefits will take into account the form of payments under Westinghouse plans.

(c) The terms of this Appendix will be interpreted, where appropriate, to include the corresponding terms under the Westinghouse Plan and to take into account events both before and after the Westinghouse Acquisition.

Section B.05. Breaks Spanning March 1, 1996. There may be Executives who participated in the Westinghouse Plan but because of a break in their service did not become employees of the Affiliated Companies on March 1, 1996 as a result of the Westinghouse Acquisition.

(a) Those Executives might be hired later by the Electronic Sensors & Systems Division.

(b) They will in no case be entitled to service or compensation credits or benefits under this Plan with respect to any service or compensation prior to their first hire by the Electronic Sensors & Systems Division after March 1, 1996. The Executives will not be

considered to have previously met the requirement of five years of continuous service as an Executive.

APPENDIX C

Coordination With Westinghouse Plan

Section C.01. In General. As part of the Westinghouse Acquisition, this Plan was established by Northrop Grumman Corporation.

(a) This Plan is intended to be a continuation of the Westinghouse Plan with only minor changes.

(b) This Plan assumes remaining liabilities of the Westinghouse Plan with regard to those participants of the Westinghouse Plan who became Employees of the Northrop Grumman controlled group on March 1, 1996 as a result of the Westinghouse Acquisition. Accordingly, benefits earned by Participants of this Plan under the Westinghouse Plan before March 1, 1996 are payable under this Appendix.

(c) Employees first hired after the Westinghouse Acquisition will therefore not be affected by this Appendix and will have their pension benefits governed entirely by the other Articles and Appendices of this Plan.

Section C.02. Pre-Acquisition Benefits.

(a) Except as provided in Sections C.03 and C.04, benefits earned under the Westinghouse Executive Pension Plan are in addition to the benefits which may be earned under Articles 4 and 5.

(b) The Westinghouse Plan benefits will be calculated taking into account all pertinent facts for determining benefits under the Westinghouse Plan's provisions (including benefits and contributions under Westinghouse plans) as they have existed from time to time.

Section C.03. Coordination of Pre and Post-Acquisition Benefits. The Plan will be interpreted in light of events before and after the Westinghouse Acquisition to coordinate the calculation of benefits (including service and compensation components, benefits and contributions under Westinghouse plans and rehire provisions) under this Appendix and benefits based on Articles 4 and 5 so that the Plan will function as if it were essentially a continuation of the Westinghouse Plan.

Section C.04. No Duplication of Benefits. Because this Plan is intended as a continuation of the Westinghouse Plan, this Plan will not pay any benefits already paid or payable by the Westinghouse Plan itself.

APPENDIX D

2005-2007 Transition Rules

This Appendix D provides the distribution rules that apply to the portion of benefits under the Plan subject to Code section 409A for Executives with benefit commencement dates after January 1, 2005 and before January 1, 2008.

Section D.01. Election. Executives scheduled to commence payments during 2005 may elect to receive both pre-2005 benefit accruals and 2005 benefit accruals in any optional form of benefit available under the Plan as of December 31, 2004. Executives electing optional forms of benefits under this provision will commence payments on the Executive's selected benefit commencement date.

Section D.02. 2005 Commencements. Pursuant to IRS Notice 2005-1, Q&A-19 & Q&A-20, Executives commencing payments in 2005 from the Plan may elect a form of distribution from among those available under the Plan on December 31, 2004, and benefit payments shall begin at the time elected by the Executive.

(a) Key Employees. A Key Employee Separating from Service on or after July 1, 2005, with Plan distributions subject to Code section 409A scheduled to be paid in 2006 and within six months of his date of Separation from Service, shall have such distributions delayed for six months from the Key Employee's date of Separation from Service. The delayed distributions shall be paid as a single sum with interest at the end of the six month period and Plan distributions will resume as scheduled at such time. Interest shall be computed using the retroactive annuity starting date rate in effect under the Northrop Grumman Pension Plan on a month-by-month basis during such period (i.e., the rate may change in the event the period spans two calendar years). Alternatively, the Key Employee may elect under IRS Notice 2005-1, Q&A-20 to have such distributions accelerated and paid in 2005 without the interest adjustment, provided, such election is made in 2005.

(b) Lump Sum Option. During 2005, a temporary immediate lump sum feature shall be available as follows:

(1) In order to elect a lump sum payment pursuant to IRS Notice 2005-1, Q&A-20, an Executive must be an elected or appointed officer of the Company and eligible to commence payments under the underlying qualified pension plan on or after June 1, 2005 and on or before December 1, 2005;

(2) The lump sum payment shall be made in 2005 as soon as feasible after the election; and

(3) Interest and mortality assumptions and methodology for calculating lump sum amount shall be based on the Plan's procedures for calculating lump sums as of December 31, 2004.

Section D.03. 2006 and 2007 Commencements. Pursuant to IRS transition relief, for all benefit commencement dates in 2006 and 2007 (provided election is made in 2006 or 2007), distribution of Plan benefits subject to Code section 409A shall begin 12 months after the later of: (a) the Executive's benefit election date, or (b) the underlying qualified pension plan benefit commencement date (as specified in the Executive's benefit election form). Payments delayed during this 12-month period will be paid at the end of the period with interest. Interest shall be computed using the retroactive annuity starting date rate in effect under the Northrop Grumman Pension Plan on a month-by-month basis during such period (i.e., the rate may change in the event the period spans two calendar years).

APPENDIX E

Post 2007 Distribution of 409A Amounts

The provisions of this Appendix E shall apply only to the portion of benefits under the Plan that are subject to Code section 409A with benefit commencement dates on or after January 1, 2008. Distribution rules applicable to the Grandfathered Amounts are set forth in Article VII, and Appendix D addresses distributions of amounts subject to Code section 409A with benefit commencement dates after January 1, 2005 and prior to January 1, 2008

Section E.01. Time of Distribution. Subject to the special rules provided in this Appendix E, distributions to an Executive of his vested retirement benefit shall commence as of the Payment Date.

Section E.02. Special Rule for Key Employees. If an Executive is a Key Employee and age 55 or older at his Separation from Service, distributions to the Executive shall commence on the first day of the seventh month following the date of his Separation from Service (or, if earlier, the date of the Executive's death). Amounts otherwise payable to the Executive during such period of delay shall be accumulated and paid on the first day of the seventh month following the Executive's Separation from Service, along with interest on the delayed payments. Interest shall be computed using the retroactive annuity starting date rate in effect under the Northrop Grumman Pension Plan on a month-by-month basis during such delay (i.e., the rate may change in the event the delay spans two calendar years).

Section E.03. Forms of Distribution. Subject to the special rules provided in this Appendix E, an Executive's vested retirement benefit shall be distributed in the form of a single life annuity. However, an Executive may elect an optional form of benefit up until the date payments commence or such earlier time as provided by the Company. The optional forms of payment are:

- (a) 50% joint and survivor annuity
- (b) 75% joint and survivor annuity
- (c) 100% joint and survivor annuity.

If an Executive is married on the date his payments commence and elects a joint and survivor annuity, his survivor annuitant will be his spouse unless some other survivor annuitant is named with spousal consent. Spousal consent, to be effective, must be submitted in writing before the date his payments commence, or such earlier time as provided by the Company, and must be witnessed by a Plan representative or notary public. No spousal consent is necessary if the Company determines that there is no spouse or that the spouse cannot be found

Section E.04. Death. If a married Executive dies before the Payment Date, a death benefit will be payable to the Executive's spouse commencing 90 days after the Executive's death. The death benefit will be a single life annuity in an amount equal to the survivor portion

of an Executive's vested retirement benefit based on a 100% joint and survivor annuity determined on the Executive's date of death. This benefit is also payable to an Executive's domestic partner who is properly registered with the Company in accordance with procedures established by the Company.

Section E.05. Actuarial Assumptions. Except as provided in Section E.06, all forms of payment under this Appendix E shall be actuarially equivalent life annuity forms of payment, and all conversions from one such form to another shall be based on the following actuarial assumptions:

Interest Rate: 6%

Mortality Table: RP-2000 Mortality Table projected 15 years for future standardized cash balance factors

Section E.06. Accelerated Lump Sum Payouts.

(a) Post-2007 Separations. Notwithstanding the provisions of this Appendix E, for Executives who Separate from Service on or after January 1, 2008, if the present value of (a) the vested portion of an Executive's retirement benefit and (b) other vested amounts under nonaccount balance plans that are aggregated with the retirement benefit under Code section 409A, determined on the first of the month coincident with or following the date of his Separation from Service, is less than or equal to \$25,000, such benefit amount shall be distributed to the Executive (or his spouse or domestic partner, if applicable) in a lump sum payment. Subject to the special timing rule for Key Employees under Section E.02, the lump sum payment shall be made within 90 days after the first of the month coincident with or following the date of the Executive's Separation from Service.

(b) Pre-2008 Separations. Notwithstanding the provisions of this Appendix E, for Executives who Separate from Service before January 1, 2008, if the present value of (a) the vested portion of an Executive's retirement benefit and (b) other vested amounts under nonaccount balance plans that are aggregated with the retirement benefit under Code section 409A, determined on the first of the month coincident with or following the date the Executive attains age 55, is less than or equal to \$25,000, such benefit amount shall be distributed to the Executive (or his spouse or domestic partner, if applicable) in a lump sum payment within 90 days after the first of the month coincident with or following the date the Executive attains age 55, but no earlier than January 1, 2008.

(c) Conflicts of Interest. The present value of an Executive's vested retirement benefit shall also be payable in an immediate lump sum to the extent required under conflict of interest rules for government service and permissible under Code section 409A.

(d) Present Value Calculation. The conversion of an Executive's retirement benefit into a lump sum payment and the present value calculations under this Section E.06 shall be based on the actuarial assumptions in effect under the Northrop Grumman Pension Plan for purposes of calculating lump sum amounts, and will be based on the Executive's immediate

benefit if the Executive is 55 or older at Separation from Service. Otherwise, the calculation will be based on the benefit amount the Executive will be eligible to receive at age 55.

Section E.07. Effect of Early Taxation. If an Executive's benefits under the Plan are includible in income pursuant to Code section 409A, the Company shall have the discretion to accelerate the distribution of all or a portion of such includible benefits to the Executive, provided that the Executive shall not be given a direct or indirect election as to whether such discretion is exercised.

Section E.08. Permitted Delays. Notwithstanding the foregoing, any payment to an Executive under the Plan shall be delayed upon the Company's reasonable anticipation of one or more of the following events:

- (a) The Company's deduction with respect to such payment would be eliminated by application of Code section 162(m); or
- (b) The making of the payment would violate Federal securities laws or other applicable law;

provided, that any payment delayed pursuant to this Section E.08 shall be paid in accordance with Code section 409A.

APPENDIX F

Committees and Appointments

Notwithstanding anything to the contrary in this Plan, effective as of October 25, 2011, the Chief Executive Officer of Northrop Grumman Corporation shall appoint, and shall have the power to remove, the members of (1) an Administrative Committee that shall have responsibility for administering the Plan (including as such responsibilities are described in Article 9 of the Plan) and (2) an Investment Committee that shall have responsibility for overseeing any rabbi trusts or other informal funding for the Plan.

NORTHROP GRUMMAN
SAVINGS EXCESS PLAN

(Amended and Restated Effective as of January 1, 2016)

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INTRODUCTION

The Northrop Grumman Savings Excess Plan (the "Plan") was last amended and restated effective as of January 1, 2015. This restatement amends that version of the Plan, and is effective January 1, 2016, and does not affect amounts earned and vested under the Plan prior to 2005.

Northrop Grumman Corporation (the "Company") established this Plan for participants in the Northrop Grumman Savings Plan who exceed the limits under sections 401(a)(17) or 415(c) of the Internal Revenue Code. This Plan is intended (1) to comply with section 409A of the Internal Revenue Code, as amended (the "Code") and official guidance issued thereunder (except with respect to amounts covered by Appendix B), and (2) to be "a plan which is unfunded and is maintained by an employer primarily for the purpose of providing deferred compensation for a select group of management or highly compensated employees" within the meaning of sections 201(2), 301(a)(3) and 401(a)(1) of the Employee Retirement Income Security Act of 1974. Notwithstanding any other provision of this Plan, this Plan shall be interpreted, operated and administered in a manner consistent with these intentions.

ARTICLE I

DEFINITIONS

1.1 Definitions

Whenever the following words and phrases are used in this Plan, with the first letter capitalized, they shall have the meanings specified below.

- (a) "Account" shall mean the recordkeeping account set up for each Participant to keep track of amounts to his or her credit.
- (b) "Administrative Committee" means the committee in charge of Plan administration, as described in Article VII.
- (c) "Affiliated Companies" shall mean the Company and any entity affiliated with the Company under Code sections 414(b) or (c).
- (d) "Base Salary" shall mean a Participant's annual base salary, excluding bonuses, commissions, incentive and all other remuneration for services rendered to the Affiliated Companies and prior to reduction for any salary contributions to a plan established pursuant to section 125 of the Code or qualified pursuant to section 401(k) of the Code.
- (e) "Basic Contributions" shall have the same meaning as that term is defined in the NGSP.
- (f) "Beneficiary" or "Beneficiaries" shall mean the person or persons, including a trustee, personal representative or other fiduciary, last designated in writing by a

Participant in accordance with procedures established by the Administrative Committee to receive the benefits specified hereunder in the event of the Participant's death.

(1) No Beneficiary designation shall become effective until it is filed with the Administrative Committee.

(2) Any designation shall be revocable at any time through a written instrument filed by the Participant with the Administrative Committee with or without the consent of the previous Beneficiary.

No designation of a Beneficiary other than the Participant's spouse shall be valid unless consented to in writing by such spouse. If there is no such designation or if there is no surviving designated Beneficiary, then the Participant's surviving spouse shall be the Beneficiary. If there is no surviving spouse to receive any benefits payable in accordance with the preceding sentence, the duly appointed and currently acting personal representative of the Participant's estate (which shall include either the Participant's probate estate or living trust) shall be the Beneficiary. In any case where there is no such personal representative of the Participant's estate duly appointed and acting in that capacity within 90 days after the Participant's death (or such extended period as the Administrative Committee determines is reasonably necessary to allow such personal representative to be appointed, but not to exceed 180 days after the Participant's death), then Beneficiary shall mean the person or persons who can verify by affidavit or court order to the satisfaction of the Administrative Committee that they are legally entitled to receive the benefits specified hereunder. Any payment made pursuant to such determination shall constitute a full release and discharge of the Plan, the Administrative Committee and the Company. Effective January 1, 2007, a Participant will automatically revoke a designation of a spouse as primary beneficiary upon the dissolution of their marriage.

(3) In the event any amount is payable under the Plan to a minor, payment shall not be made to the minor, but instead be paid (a) to that person's living parent(s) to act as custodian, (b) if that person's parents are then divorced, and one parent is the sole custodial parent, to such custodial parent, or (c) if no parent of that person is then living, to a custodian selected by the Administrative Committee to hold the funds for the minor under the Uniform Transfers or Gifts to Minors Act in effect in the jurisdiction in which the minor resides. If no parent is living and the Administrative Committee decides not to select another custodian to hold the funds for the minor, then payment shall be made to the duly appointed and currently acting guardian of the estate for the minor or, if no guardian of the estate for the minor is duly appointed and currently acting within 60 days after the date the amount becomes payable, payment shall be deposited with the court having jurisdiction over the estate of the minor. Any payment made pursuant to such determination shall constitute a full release and discharge of the Plan, the Administrative Committee and the Company.

(4) Payment by the Affiliated Companies pursuant to any unrevoked Beneficiary designation, or to the Participant's estate if no such designation exists, of all benefits owed hereunder shall terminate any and all liability of the Affiliated Companies.

(g) "Board" shall mean the Board of Directors of the Company.

(h) "Bonuses" shall mean the bonuses earned under the Company's formal incentive plans as defined by the Administrative Committee.

(i) "Code" shall mean the Internal Revenue Code of 1986, as amended.

(j) "Committees" shall mean the Committees appointed as provided in Article VII.

(k) "Company" shall mean Northrop Grumman Corporation and any successor.

(l) "Company Contributions" shall mean contributions by the Company to a Participant's Account.

(m) "Compensation" shall be Compensation as defined by Section 5.01 of the NGSP.

(n) "Disability" or "Disabled" shall mean the Participant's inability to perform each and every duty of his or her occupation or position of employment due to illness or injury as determined in the sole and absolute discretion of the Administrative Committee.

(o) "Eligible Compensation" shall mean (1) Compensation prior to January 1, 2009, and (2) after 2008, Base Salary and Bonuses, reduced by the amount of any deferrals made from such amounts under the Northrop Grumman Deferred Compensation Plan.

(p) "Eligible Employee" shall mean any Employee who meets the following conditions:

(1) he or she is eligible to participate in the NGSP;

(2) he or she is classified by the Affiliated Companies as an Employee and not as an independent contractor;

and

(3) he or she meets any additional eligibility criteria set by the Administrative Committee.

Additional eligibility criteria established by the Administrative Committee may include specifying classifications of Employees who are eligible to participate and the date as of which various groups of Employees will be eligible to participate. This includes, for example, Administrative Committee authority to delay eligibility for employees of newly acquired companies who become Employees.

(q) "Employee" shall mean any common law employee of the Affiliated Companies who is classified as an employee by the Affiliated Companies.

(r) "ERISA" shall mean the Employee Retirement Income Security Act of 1974, as it may be amended from time to time.

(s) "Investment Committee" means the committee in charge of investment aspects of the Plan, as described in Article VII.

(t) "Key Employee" means an employee who on the date of his Separation from Service is treated as a "specified employee" under Code section 409A in accordance with a uniform Company policy.

(u) "NGSP" means the Northrop Grumman Savings Plan.

(v) "Open Enrollment Period" means the period designated by the Administrative Committee for electing deferrals for the following Plan Year.

(w) "Participant" shall mean any Eligible Employee who participates in this Plan in accordance with Article II or any Employee who is a RAC Participant.

(x) "Payment Date" shall mean:

(1) for distributions upon early termination under Section B.1(a), a date after the end of the month in which termination of employment occurs; and

(2) for distributions after Retirement, Disability or death under Section B.1(b), a date after the end of the month in which occurs Retirement, the determination of Disability by the Administrative Committee, or the notification of the Administrative Committee of the Participant's death (or later qualification of the Beneficiary or Beneficiaries), as applicable.

The exact date in each case will be determined by the Administrative Committee to allow time for administrative processing.

(y) "Plan" shall be the Northrop Grumman Savings Excess Plan.

(z) "Plan Year" shall be the calendar year.

(aa) "RAC Contributions" shall mean the Company contributions under Section 3.2(b)(2) and Section 3.2(b)(4).

(bb) "RAC Participant" shall mean an Employee who is eligible to participate in the NGSP, receives Retirement Account Contributions under the NGSP, and is classified by the Affiliated Companies as an Employee and not as an independent contractor. Notwithstanding the foregoing, an Employee who becomes eligible to participate in the Officers Supplemental Executive Retirement Program II ("OSERP II") under the Northrop Grumman Supplemental Plan 2 shall immediately cease to be eligible for RAC Contributions.

(cc) "RAC Subaccount" shall mean the portion of a Participant's Account made up of RAC Contributions and earnings thereon.

(dd) "Retirement" shall mean termination of employment with the Affiliated Companies after reaching age 55.

(ee) "Separation from Service" or "Separates from Service" or "Separating from Service" means a "separation from service" within the meaning of Code section 409A.

ARTICLE II

PARTICIPATION

2.1 In General

(a) An Eligible Employee may become a Participant by complying with the procedures established by the Administrative Committee for enrolling in the Plan. Anyone who becomes an Eligible Employee will be entitled to become a Participant during an Open Enrollment Period.

(b) A RAC Participant will become a Participant when RAC Contributions are first made to his or her RAC Subaccount.

(c) An individual will cease to be a Participant when he or she no longer has a positive balance to his or her Account under the Plan.

2.2 Disputes as to Employment Status

(a) Because there may be disputes about an individual's proper status as an Employee or non-Employee, this Section describes how such disputes are to be handled with respect to Plan participation.

(b) The Affiliated Companies will make the initial determination of an individual's employment status.

(1) If an individual is not treated by the Affiliated Companies as a common law employee, then the Plan will not consider the individual to be an "Eligible Employee" and he or she will not be entitled to participate in the Plan.

(2) This will be so even if the individual is told he or she is entitled to participate in the Plan and given a summary of the plan and enrollment forms or other actions are taken indicating that he or she may participate.

(c) Disputes may arise as to an individual's employment status. As part of the resolution of the dispute, an individual's status may be changed by the Affiliated Companies from non-Employee to Employee. Such Employees are not Eligible Employees and will not be entitled to participate in the Plan.

ARTICLE III

DEFERRAL ELECTIONS

3.1 Elections to Defer Eligible Compensation

(a) Timing. An Eligible Employee who meets the requirements of Section 2.1(a) may elect to defer Eligible Compensation earned in a Plan Year by filing an election in the Open Enrollment Period for the Plan Year. An election to participate for a Plan Year is irrevocable.

(b) Election Rules. An Eligible Employee's election may be made in writing, electronically, or as otherwise specified by the Administrative Committee. Such election shall specify the Eligible Employee's rate of deferral for contributions to the Plan, which shall be between 1% and 50%, and shall address distribution of the deferred amounts as described in Section 6.1. All elections must be made in accordance with the rules, procedures and forms provided by the Administrative Committee. The Administrative Committee may change the rules, procedures and forms from time to time and without prior notice to Participants.

(c) Cancellation of Election. If a Participant becomes disabled (as defined under Code section 409A) during a Plan Year, his deferral election for such Plan Year shall be cancelled.

3.2 Contribution Amounts

(a) Participant Contributions. An Eligible Employee's contributions under the Plan for a Plan Year will begin once his or her Compensation for the Plan Year exceeds the Code section 401(a)(17) limit for the Plan Year. The Participant's elected deferral percentage will be applied to his or her Eligible Compensation for the balance of the Plan Year.

(b) Company Contributions. The Company will make Company Contributions to a Participant's Account as provided in (1), (2) and (3) below.

(1) Matching Contributions. The Company will make a Company Contribution equal to the matching contribution rate for which the Participant is eligible under the NGSP for the Plan Year multiplied by the amount of the Participant's contributions under subsection (a).

(2) RAC Contributions. Effective July 1, 2008, the Company will make RAC Contributions equal to a percentage of a RAC Participant's Compensation for a Plan Year in excess of the Code section 401(a)(17) limit. The percentage used to calculate a RAC Participant's contribution for a Plan Year shall be based on the RAC Participant's age on the last day of the Plan Year as follows:

- (i) Three percent if not yet age 35.
- (ii) Four percent if 35 or older, but not yet 50.

(iii) Five percent if age 50 or older.

(3) Make-Up Matching Contributions for Contribution Limitation. If an Eligible Employee's Basic Contributions under the NGSP for a Plan Year are limited by the Code section 415(c) contribution limit before the Eligible Employee's Basic Contributions under the NGSP are limited by the Code section 401(a)(17) compensation limit, the Company will make a Company Contribution equal to the amount of matching contributions for which the Eligible Employee would have been eligible under the NGSP were Code section 415(c) not applied, reduced by the actual amount of matching contributions made for the Plan Year under the NGSP.

(4) Make-Up RAC Contributions for Contribution Limitation. If an Eligible Employee is a RAC Participant and his Retirement Account Contributions under the NGSP for a Plan Year are limited by the Code section 415(c) contribution limit before the RAC Participant's Retirement Account Contributions under the NGSP are limited by the Code section 401(a)(17) compensation limit, the Company will make a Company Contribution equal to the amount of Retirement Account Contributions for which the RAC Participant would have been eligible under the NGSP were Code section 415(c) not applied, reduced by the actual amount of Retirement Account Contributions made for the Plan Year under the NGSP.

3.3 Crediting of Deferrals

Amounts deferred by a Participant under the Plan shall be credited to the Participant's Account as soon as practicable after the amounts would have otherwise been paid to the Participant. Company contributions other than those under Section 3.2(b)(3) and Section 3.2(b)(4) will be credited to Accounts as soon as practicable after each payroll cycle in which they accrue. Company contributions under Section 3.2(b)(3) and Section 3.2(b)(4) will be credited to Accounts as soon as practicable after each Plan Year.

3.4 Investment Elections

(a) The Investment Committee will establish a number of different investment funds or other investment options for the Plan. The Investment Committee may change the funds or other investment options from time to time, without prior notice to Participants.

(b) Participants may elect how their future contributions and existing Account balances will be deemed invested in the various investment funds and may change their elections from time to time. If a Participant does not elect how future contributions will be deemed invested, contributions will be deemed invested in the qualified default investment alternative ("QDIA") that applies to the Participant under the NGSP.

(c) The deemed investments for a RAC Participant's RAC Subaccount must be the same as the deemed investments for the RAC Participant's Company contributions under Section 3.2(b)(1).

(d) Selections of investments, changes and transfers must be made according to the rules and procedures of the Administrative Committee.

(1) The Administrative Committee may prescribe rules that may include, among other matters, limitations on the amounts that may be transferred and procedures for electing transfers.

(2) The Administrative Committee may prescribe valuation rules for purposes of investment elections and transfers. Such rules may, in the Administrative Committee's discretion, use averaging methods to determine values and accrue estimated expenses. The Administrative Committee may change the methods it uses for valuation from time to time.

(3) The Administrative Committee may prescribe the periods and frequency with which Participants may change deemed investment elections and make transfers.

(4) The Administrative Committee may change its rules and procedures from time to time and without prior notice to Participants.

(e) Effective January 13, 2011, Participant investment elections involving a Company stock investment fund (e.g., transfers into or out of the fund) may be restricted, including in accordance with Company policies generally applicable to employee transactions in Company stock.

3.5 Investment Return Not Guaranteed

Investment performance under the Plan is not guaranteed at any level. Participants may lose all or a portion of their contributions due to poor investment performance.

ARTICLE IV

ACCOUNTS

4.1 Accounts

The Administrative Committee shall establish and maintain a recordkeeping Account for each Participant under the Plan.

4.2 Valuation of Accounts

The valuation of Participants' recordkeeping Accounts will reflect earnings, losses, expenses and distributions, and will be made in accordance with the rules and procedures of the Administrative Committee.

(a) The Administrative Committee may set regular valuation dates and times and also use special valuation dates and times and procedures from time to time under unusual circumstances and to protect the financial integrity of the Plan.

(b) The Administrative Committee may use averaging methods to determine values and accrue estimated expenses.

(c) The Administrative Committee may change its valuation rules and procedures from time to time and without prior notice to Participants.

4.3 Use of a Trust

The Company may set up a trust to hold any assets or insurance policies that it may use in meeting its obligations under the Plan. Any trust set up will be a rabbi trust and any assets placed in the trust shall continue for all purposes to be part of the general assets of the Company and shall be available to its general creditors in the event of the Company's bankruptcy or insolvency.

ARTICLE V

VESTING AND FORFEITURES

5.1 In General

A Participant's interest in his or her Account will be nonforfeitable, subject to the exceptions in Section 5.2.

5.2 Exceptions

The following exceptions apply to the vesting rule in Section 5.1 above:

(a) A RAC Participant shall become fully vested in his or her RAC Subaccount and earnings thereon upon the earliest of the following dates, provided he or she is an Employee at such time: (i) the date he or she completes three years of service, (ii) the date of his or her 65th birthday, (iii) the date of his or her death, (iv) the date he or she becomes Disabled, or (v) the date Company Contributions are completely discontinued or the Plan is terminated. Notwithstanding anything to the contrary, if a Participant terminates employment with the Affiliated Companies prior to vesting as set forth in this Section 5.2(a), his or her unvested RAC Subaccount and earnings thereon shall be immediately forfeited upon such termination. For this purpose, years of service shall be calculated in the same manner as for purposes of determining vesting in Retirement Account Contributions under the NGSP (including the treatment of a break in service).

(b) A Participant whose original date of hire with the Affiliated Companies is after April 30, 2012 shall become fully vested in his or her Company matching contributions under Sections 3.2(b)(1) and (3) and earnings thereon upon the earliest of the following dates,

provided he or she is an Employee at such time: (i) the date he or she completes three years of service, (ii) the date of his or her 65th birthday, (iii) the date of his or her death, or (iv) the date he or she becomes Disabled, or (v) the date Company Contributions are completely discontinued or the Plan is terminated. Notwithstanding anything to the contrary, if a Participant terminates employment with the Affiliated Companies prior to vesting as set for in this Section 5.2(b), his or her unvested Company matching contributions under Sections 3.2(b)(1) and (3) and earnings thereon shall be immediately forfeited upon such termination. For this purpose, years of service shall be calculated in the same manner as for purposes of determining vesting in Retirement Account Contributions under the NGSP (including the treatment of a break in service).

- (c) Forfeitures on account of a lost payee. See Section 6.6.
- (d) Forfeitures under an escheat law.
- (e) Recapture of amounts improperly credited to a Participant's Account or improperly paid to or with respect to a Participant.
- (f) Expenses charged to a Participant's Account.
- (g) Investment losses.

ARTICLE VI

DISTRIBUTIONS

6.1 Distribution Rules for Non-RAC Amounts

The rules in this Section 6.1 apply to distribution of a Participant's Account other than the RAC Subaccount.

Notwithstanding the foregoing, Appendix B governs the distribution of amounts that were earned and vested (within the meaning of Code section 409A and regulations thereunder) under the Plan prior to 2005 (and earnings thereon) and are exempt from the requirements of Code section 409A. Thus, this Section 6.1 does not apply to these pre-2005 deferrals, but does apply to all other amounts deferred under the Plan.

(a) Separate Distribution Election. A Participant must make a separate distribution election for each year's contributions. A Participant generally makes a distribution election at the same time the Participant makes the deferral election, i.e., during the Open Enrollment Period.

(b) Distribution Upon Separation. A Participant may elect on a deferral form to have the vested portion of his Account related to amounts deferred under the deferral form and Company contributions for the same year (and earnings thereon) distributed in a lump sum or in quarterly or annual installments over a period of 1 to 15 years. Lump sum payments under the Plan will be made in the month following the Participant's Separation from Service. Installment

payments shall commence in the March, June, September or December next following the month of Separation from Service. If a Participant does not make a distribution election and his vested Account balance (including amounts subject to Appendix B) exceeds \$50,000 and the Participant is age 55 or older at the time the Participant Separates from Service, the Participant will receive quarterly installments over a 10-year period. Otherwise, a Participant not making an election will receive a lump sum payment. Notwithstanding the foregoing, if the Participant's vested Account balance (including amounts subject to Appendix B) is \$50,000 or less or the Participant is under age 55 at the time the Participant Separates from Service, the vested Account balance shall be distributed in a lump sum payment in the month following the Participant's Separation from Service.

Notwithstanding the timing rules in the foregoing paragraph, distributions may not be made to a Key Employee upon a Separation from Service before the date which is six months after the date of the Key Employee's Separation from Service (or, if earlier, the date of death of the Key Employee). Any payments that would otherwise be made during this period of delay shall be accumulated and paid six months after the date payments would have commenced absent the six month delay.

(c) Changes in Form of Distribution. A Participant may make up to two subsequent elections to change the form of a distribution for any year's deferrals and Company contributions. Such an election, however, shall be effective only if the following conditions are satisfied:

(1) The election may not take effect until at least twelve (12) months after the date on which the election is made; and

(2) The distribution will be made exactly five (5) years from the date the distribution would have otherwise been made.

6.2 Distribution Rules for RAC Subaccount

The full vested balance in a RAC Subaccount shall be distributed in a lump sum upon a RAC Participant's Separation from Service. Notwithstanding the foregoing, distribution will not be made to a Key Employee upon a Separation from Service until the date which is six months after the date of the Key Employee's Separation from Service (or, if earlier, the date of death of the Key Employee).

6.3 Effect of Taxation

If a Participant's benefits under the Plan are includible in income pursuant to Code section 409A, the Company shall have the discretion to accelerate the distribution of all or a portion of such includible benefits to the Participant, provided that the Participant shall not be given a direct or indirect election as to whether such discretion is exercised.

6.4 Permitted Delays

Notwithstanding the foregoing, any payment to a Participant under the Plan shall be delayed upon the Committee's reasonable anticipation of one or more of the following events:

- (a) The Company's deduction with respect to such payment would be eliminated by application of Code section 162(m); or
- (b) The making of the payment would violate Federal securities laws or other applicable law;
- (c) provided, that any payment delayed pursuant to this Section 6.4 shall be paid in accordance with Code section 409A.

6.5 Payments Not Received At Death

In the event of the death of a Participant before receiving a payment, payment will be made to his or her estate if death occurs on or after the date of a check that has been issued by the Plan. Otherwise, payment of the amount will be made to the Participant's Beneficiary.

6.6 Inability to Locate Participant

In the event that the Administrative Committee is unable to locate a Participant or Beneficiary within two years following the required payment date, the amount allocated to the Participant's Account shall be forfeited. If, after such forfeiture and prior to termination of the Plan, the Participant or Beneficiary later claims such benefit, such benefit shall be reinstated without interest or earnings for the forfeiture period.

6.7 Committee Rules

All distributions are subject to the rules and procedures of the Administrative Committee. The Administrative Committee may also require the use of particular forms. The Administrative Committee may change its rules, procedures and forms from time to time and without prior notice to Participants.

ARTICLE VII

ADMINISTRATION

7.1 Committees

(a) Effective April 27, 2006, the Administrative Committee shall be comprised of the individuals (in their corporate capacity) who are members of the Administrative Committee for Northrop Grumman Deferred Compensation Plan. If no such Administrative Committee exists, the members of the Administrative Committee for the Plan shall be individuals holding the following positions within the Company (as such titles may be modified from time to

time), or their successors in office: the Corporate Vice President and Chief Human Resources and Administration Officer; the Corporate Vice President, Controller and Chief Accounting Officer; the Vice President, Taxation; the Vice President, Compensation, Benefits and HRIS; and the Corporate Director, Benefits Administration and Services. A member of the Administrative Committee may resign by delivering a written notice of resignation to the Corporate Vice President and Chief Human Resources and Administration Officer.

(b) Prior to April 27, 2006, the Administrative Committee shall be comprised of the individuals appointed by the Compensation Committee of the Board (the "Compensation Committee").

(c) An Investment Committee (referred to together with the Administrative Committee as, the "Committees"), comprised of one or more persons, shall be appointed by and serve at the pleasure of the Board (or its delegate). The number of members comprising the Investment Committee shall be determined by the Board, which may from time to time vary the number of members. A member of the Investment Committee may resign by delivering a written notice of resignation to the Board. The Board may remove any member by delivering a certified copy of its resolution of removal to such member. Vacancies in the membership of the Investment Committee shall be filled promptly by the Board.

7.2 Committee Action

Each Committee shall act at meetings by affirmative vote of a majority of the members of that Committee. Any determination of action of a Committee may be made or taken by a majority of a quorum present at any meeting thereof, or without a meeting, by resolution or written memorandum signed by a majority of the members of the Committee then in office. A member of a Committee shall not vote or act upon any matter which relates solely to himself or herself as a Participant. The Chairman or any other member or members of each Committee designated by the Chairman may execute any certificate or other written direction on behalf of the Committee of which he or she is a member.

The Compensation Committee shall appoint a Chairman from among the members of the Administrative Committee and a Secretary who may or may not be a member of the Administrative Committee. The Administrative Committee shall conduct its business according to the provisions of this Article and the rules contained in the current edition of Robert's Rules of Order or such other rules of order the Administrative Committee may deem appropriate. The Administrative Committee shall hold meetings from time to time in any convenient location.

7.3 Powers and Duties of the Administrative Committee

The Administrative Committee shall enforce the Plan in accordance with its terms, shall be charged with the general administration of the Plan, and shall have all powers necessary to accomplish its purposes, including, but not by way of limitation, the following:

- (a) To construe and interpret the terms and provisions of this Plan and make all factual determinations;
- (b) To compute and certify to the amount and kind of benefits payable to Participants and their Beneficiaries;
- (c) To maintain all records that may be necessary for the administration of the Plan;
- (d) To provide for the disclosure of all information and the filing or provision of all reports and statements to Participants, Beneficiaries or governmental agencies as shall be required by law;
- (e) To make and publish such rules for the regulation of the Plan and procedures for the administration of the Plan as are not inconsistent with the terms hereof;
- (f) To appoint a Plan administrator or any other agent, and to delegate to them such powers and duties in connection with the administration of the Plan as the Administrative Committee may from time to time prescribe (including the power to subdelegate);
- (g) To exercise powers granted the Administrative Committee under other Sections of the Plan; and
- (h) To take all actions necessary for the administration of the Plan, including determining whether to hold or discontinue insurance policies purchased in connection with the Plan.

7.4 Powers and Duties of the Investment Committee

The Investment Committee shall have all powers necessary to accomplish its purposes, including, but not by way of limitation, the following:

- (a) To select types of investment and the actual investments against which earnings and losses will be measured;
- (b) To oversee any rabbi trust; and
- (c) To appoint agents, and to delegate to them such powers and duties in connection with its duties as the Investment Committee may from time to time prescribe (including the power to subdelegate).

7.5 Construction and Interpretation

The Administrative Committee shall have full discretion to construe and interpret the terms and provisions of this Plan, to make factual determinations and to remedy possible inconsistencies and omissions. The Administrative Committee's interpretations, constructions and remedies shall be final and binding on all parties, including but not limited to the Affiliated

Companies and any Participant or Beneficiary. The Administrative Committee shall administer such terms and provisions in a uniform and nondiscriminatory manner and in full accordance with any and all laws applicable to the Plan.

7.6 Information

To enable the Committees to perform their functions, the Affiliated Companies adopting the Plan shall supply full and timely information to the Committees on all matters relating to the compensation of all Participants, their death or other events that cause termination of their participation in this Plan, and such other pertinent facts as the Committees may require.

7.7 Committee Compensation, Expenses and Indemnity

(a) The members of the Committees shall serve without compensation for their services hereunder.

(b) The Committees are authorized to employ such accounting, consultants or legal counsel as they may deem advisable to assist in the performance of their duties hereunder.

(c) To the extent permitted by ERISA and applicable state law, the Company shall indemnify and hold harmless the Committees and each member thereof, the Board and any delegate of the Committees who is an employee of the Affiliated Companies against any and all expenses, liabilities and claims, including legal fees to defend against such liabilities and claims arising out of their discharge in good faith of responsibilities under or incident to the Plan, other than expenses and liabilities arising out of willful misconduct. This indemnity shall not preclude such further indemnities as may be available under insurance purchased by the Company or provided by the Company under any bylaw, agreement or otherwise, as such indemnities are permitted under ERISA and state law.

7.8 Disputes

The Company's standardized "Northrop Grumman Nonqualified Retirement Plans Claims and Appeals Procedures" shall apply in handling claims and appeals under this Plan.

ARTICLE VIII

MISCELLANEOUS

8.1 Unsecured General Creditor

Participants and their Beneficiaries, heirs, successors, and assigns shall have no legal or equitable rights, claims, or interest in any specific property or assets of the Affiliated Companies. No assets of the Affiliated Companies shall be held in any way as collateral security for the fulfilling of the obligations of the Affiliated Companies under this Plan. Any and all of the Affiliated Companies' assets shall be, and remain, the general unpledged, unrestricted assets of the Affiliated Companies. The obligation under the Plan of the Affiliated Companies adopting the

Plan shall be merely that of an unfunded and unsecured promise of those Affiliated Companies to pay money in the future, and the rights of the Participants and Beneficiaries shall be no greater than those of unsecured general creditors. It is the intention of the Affiliated Companies that this Plan be unfunded for purposes of the Code and for purposes of Title I of ERISA.

8.2 Restriction Against Assignment

(a) The Company shall pay all amounts payable hereunder only to the person or persons designated by the Plan and not to any other person or corporation. No part of a Participant's Accounts shall be liable for the debts, contracts, or engagements of any Participant, his or her Beneficiary, or successors in interest, nor shall a Participant's Accounts be subject to execution by levy, attachment, or garnishment or by any other legal or equitable proceeding, nor shall any such person have any right to alienate, anticipate, sell, transfer, commute, pledge, encumber, or assign any benefits or payments hereunder in any manner whatsoever. If any Participant, Beneficiary or successor in interest is adjudicated bankrupt or purports to anticipate, alienate, sell, transfer, commute, assign, pledge, encumber or charge any distribution or payment from the Plan, voluntarily or involuntarily, the Administrative Committee, in its discretion, may cancel such distribution or payment (or any part thereof) to or for the benefit of such Participant, Beneficiary or successor in interest in such manner as the Administrative Committee shall direct.

(b) The actions considered exceptions to the vesting rule under Section 5.2 will not be treated as violations of this Section.

(c) Notwithstanding the foregoing, all or a portion of a Participant's vested Account balance may be paid to another person as specified in a domestic relations order that the Administrative Committee determines is qualified (a "Qualified Domestic Relations Order"). For this purpose, a Qualified Domestic Relations Order means a judgment, decree, or order (including the approval of a settlement agreement) which is:

- (1) issued pursuant to a State's domestic relations law;
- (2) relates to the provision of child support, alimony payments or marital property rights to a spouse, former spouse, child or other dependent of the Participant;
- (3) creates or recognizes the right of a spouse, former spouse, child or other dependent of the Participant to receive all or a portion of the Participant's benefits under the Plan; and
- (4) meets such other requirements established by the Administrative Committee.

The Administrative Committee shall determine whether any document received by it is a Qualified Domestic Relations Order. In making this determination, the Administrative Committee may consider the rules applicable to "domestic relations orders" under Code section 414(p) and ERISA section 206(d), and such other rules and procedures as it deems relevant.

8.3 Restriction Against Double Payment

If a court orders an assignment of benefits despite Section 8.2, the affected Participant's benefits will be reduced accordingly. The Administrative Committee may use any reasonable actuarial assumptions to accomplish the offset under this Section.

8.4 Withholding

There shall be deducted from each payment made under the Plan or any other compensation payable to the Participant (or Beneficiary) all taxes, which are required to be withheld by the Affiliated Companies in respect to such payment or this Plan. The Affiliated Companies shall have the right to reduce any payment (or compensation) by the amount of cash sufficient to provide the amount of said taxes.

8.5 Amendment, Modification, Suspension or Termination

The Company may, in its sole discretion, terminate, suspend or amend this Plan at any time or from time to time, in whole or in part for any reason. Notwithstanding the foregoing, no amendment or termination of the Plan shall reduce the amount of a Participant's Account balance as of the date of such amendment or termination. Upon termination of the Plan, distribution of balances in Accounts shall be made to Participants and Beneficiaries in the manner and at the time described in Article VI, unless the Company determines in its sole discretion that all such amounts shall be distributed upon termination in accordance with the requirements under Code section 409A.

Notwithstanding the foregoing, no amendment of the Plan shall apply to amounts that were earned and vested (within the meaning of Code section 409A and regulations thereunder) under the Plan prior to 2005, unless the amendment specifically provides that it applies to such amounts. The purpose of this restriction is to prevent a Plan amendment from resulting in an inadvertent "material modification" to amounts that are "grandfathered" and exempt from the requirements of Code section 409A.

8.6 Governing Law

To the extent not preempted by ERISA, this Plan shall be construed, governed and administered in accordance with the laws of Delaware.

8.7 Receipt and Release

Any payment to a payee in accordance with the provisions of the Plan shall, to the extent thereof, be in full satisfaction of all claims against the Plan, the Committees and the Affiliated Companies. The Administrative Committee may require such payee, as a condition precedent to such payment, to execute a receipt and release to such effect.

8.8 Payments on Behalf of Persons Under Incapacity

In the event that any amount becomes payable under the Plan to a person who, in the sole judgment of the Administrative Committee, is considered by reason of physical or mental condition to be unable to give a valid receipt therefore, the Administrative Committee may direct that such payment be made to any person found by the Committee, in its sole judgment, to have assumed the care of such person. Any payment made pursuant to such determination shall constitute a full release and discharge of the Administrative Committee and the Company.

8.9 Limitation of Rights and Employment Relationship

Neither the establishment of the Plan, any trust nor any modification thereof, nor the creating of any fund or account, nor the payment of any benefits shall be construed as giving to any Participant, or Beneficiary or other person any legal or equitable right against the Affiliated Companies or any trustee except as provided in the Plan and any trust agreement; and in no event shall the terms of employment of any Employee or Participant be modified or in any way be affected by the provisions of the Plan and any trust agreement.

8.10 Headings

Headings and subheadings in this Plan are inserted for convenience of reference only and are not to be considered in the construction of the provisions hereof.

8.11 Liabilities Transferred to HII

Northrop Grumman Corporation distributed its interest in Huntington Ingalls Industries, Inc. ("HII") to its shareholders on March 31, 2011 (the "HII Distribution Date"). Pursuant to an agreement between Northrop Grumman Corporation and HII, on the HII Distribution Date certain employees and former employees of HII ceased to participate in the Plan and the liabilities for these participants' benefits under the Plan were transferred to HII. On and after the HII Distribution Date, the Company and the Plan, and any successors thereto, shall have no further obligation or liability to any such participant with respect to any benefit, amount, or right due under the Plan.

* * *

IN WITNESS WHEREOF, this Amendment and Restatement is hereby executed by a duly authorized officer on this 29th day of June, 2015.

NORTHROP GRUMMAN CORPORATION

By: /s/ Denise Peppard
Denise Peppard
Corporate Vice President and
Chief Human Resources Officer

APPENDIX A – 2005 TRANSITION RELIEF

The following provisions apply only during 2005, pursuant to transition relief granted in IRS Notice 2005-1:

A.1 Cash-Out

Participants Separating from Service during 2005 for any reason before age 55 will receive an immediate lump sum distribution of their Account balances. Other Participants Separating from Service in 2005 will receive payments in accordance with their prior elections.

A.2 Elections

During the Plan's open enrollment period in June 2005 Participants may fully or partially cancel 2005 deferral elections and receive in 2005 a refund of amounts previously deferred in 2005.

In addition, individuals working in Company facilities impacted by Hurricane Katrina may stop or reduce 2005 elective contributions to the Plan at any time during 2005. All payments under this Section A.2 will be made before the end of calendar year 2005.

A.3 Key Employees

Key Employees Separating from Service on or after July 1, 2005, with distributions subject to Code section 409A and scheduled for payment in 2006 within six months of Separation from Service, may choose I or II below, subject to III:

- I. Delay the distributions described above for six months from the date of Separation from Service. The delayed payments will be paid as a single sum with interest at the end of the six month period, with the remaining payments resuming as scheduled.
- II. Accelerate the distributions described above into a payment in 2005 without interest adjustments.
- III. Key Employees must elect I or II during 2005.

APPENDIX B – DISTRIBUTION RULES FOR PRE-2005 AMOUNTS

Distribution of amounts earned and vested (within the meaning of Code section 409A and regulations thereunder) under the Plan or a Merged Plan prior to 2005 (and earnings thereon) are exempt from the requirements of Code section 409A and shall be made in accordance with the Plan or the applicable Merged Plan terms as in effect on December 31, 2004 and as summarized in the following provisions, except as otherwise provided in Appendix C.

B.1 Distribution of Contributions

(a) Distributions Upon Early Termination.

(1) Voluntary Termination. If a Participant voluntarily terminates employment with the Affiliated Companies before age 55 or Disability, distribution of his or her Account will be made in a lump sum on the Participant's Payment Date.

(2) Involuntary Termination. If a Participant involuntarily terminates employment with the Affiliated Companies before age 55, distribution of his or her Account will generally be made in quarterly or annual installments over a fixed number of whole years not to exceed 15 years, commencing on the Participant's Payment Date, in accordance with the Participant's original election on his or her deferral election form. Payment will be made in a lump sum if the Participant had originally elected a lump sum, if the Account balance is \$50,000 or less, or if the Administrative Committee so specifies.

(b) Distribution After Retirement, Disability or Death. In the case of a Participant who separates from service with the Affiliated Companies on account of Retirement, Disability or death and has an Account balance of more than \$50,000, the Account shall be paid to the Participant (and after his or her death to his or her Beneficiary) in substantially equal quarterly installments over 10 years commencing on the Participant's Payment Date unless an optional form of benefit has been specified pursuant to Section B.1(b) (1).

(1) An optional form of benefit may be elected by the Participant, on the form provided by Administrative Committee, during his or her initial election period from among those listed below:

(i) A lump sum distribution on the Participant's Payment Date.

(ii) Quarterly installments over a period of at least 1 and no more than 15 years beginning on the Participant's Payment Date.

(iii) Annual installments over a period of at least 2 and no more than 15 years beginning on the Participant's Payment Date.

(2) A Participant from time to time may modify the form of benefit that he or she has previously elected. Upon his or her separation from service, the most recently

elected form of distribution submitted at least 12 months prior to separation will govern. If no such election exists, distributions will be paid under the 10-year installment method.

(3) In the case of a Participant who terminates employment with the Affiliated Companies on account of Retirement, Disability or death with an Account balance of \$50,000 or less, the Account shall be paid to the Participant in a lump sum distribution on the Participant's Payment Date.

(4) In general, upon the Participant's death, payment of any remaining Account balance will be made to the Beneficiary in a lump sum on the Payment Date. But the Beneficiary will receive any remaining installments (starting on the Payment Date) if the Participant was receiving installments, or if the Participant died on or after age 55 with an Account balance over \$50,000 and with an effective installment payout election in place. In such cases, the Beneficiary may still elect a lump sum payment of the remaining Account balance, but only with the Administrative Committee's consent.

(5) In the event that this Plan is terminated, the amounts allocated to a Participant's Account shall be distributed to the Participant or, in the event of his or her death, to his or her Beneficiary in a lump sum.

APPENDIX C – MERGED PLANS

C.1 Plan Mergers

(a) Merged Plans. As of their respective effective dates, the plans listed in (c) (the "Merged Plans") are merged into this Plan. All amounts from those plans that were merged into this Plan are held in their corresponding Accounts.

(b) Accounts. Effective as of the dates below, Accounts are established for individuals who, before the merger, had account balances under the merged plans. These individuals will not accrue benefits under this Plan unless they become Participants by virtue of being hired into a covered position with an Affiliated Company, but they will be considered Participants for purposes of the merged accounts. The balance credited to the Participant's merged plan account will, effective as of the date provided in the table below, be invested in accordance with the terms of this Plan. Except as provided in section C.2 below, amounts merged into this Plan from the merged plans are governed by the terms of this Plan.

(c) Table.

Name of Merged Plans	Merger Effective Dates	Merged Account Names
Northrop Grumman Benefits Equalization Plan	December 10, 2004	NG BEP Account
Northrop Grumman Space & Mission Systems Corp. Deferred Compensation Plan	December 10, 2004	S & MS Deferred Compensation Account
BDM International, Inc. 1997 Executive Deferred Compensation Plan ("BDM Plan")	April 29, 2005	BDM Account
PRC Inc. Executive Deferred Compensation Plan ("PRC Plan")	November 9, 2012	PRC EDCP Account (or Sub-Account, as applicable)

C.2 Merged Plans – General Rule

(a) NG BEP Account and S & MS Deferred Compensation Account. Distributions from Participants' NG BEP and S & MS Deferred Compensation Accounts are made under the provisions of Appendix B, except as provided in this Section.

(1) Amounts in the Participant's NG BEP Account and the S & MS Deferred Compensation Account shall be paid out in accordance with elections made under the Merged Plans.

(2) The Participant's "Payment Date" for amounts in the NG BEP Account and the S & MS Deferred Compensation Account shall be deemed to be the end of January following the Participant's termination of employment.

(3) The reference to \$50,000 in the provisions of Appendix B shall be deemed to be \$5,000 with respect to amounts in the NG BEP Account and the S & MS Deferred Compensation Account.

(4) The Administrative Committee shall assume the rights and responsibilities of the Directors/Committee with respect to determining whether a Participant's NG BEP Account may be paid out in a form other than the automatic form of payment.

(5) The Administrative Committee shall assume the rights and responsibilities of the Committee or Special Committee with respect to determining whether a Participant's S & MS Deferred Compensation Account may be paid out in a form other than the automatic form of payment.

(6) For purposes of determining the time of payment of a Participant's NG BEP Account, a Participant's employment will not be deemed to have terminated following the Participant's layoff until the earlier of the end of the twelve-month period following layoff (without a return to employment with the Affiliated Companies) or the date on which the Participant retires under any pension plan maintained by the Affiliated Companies.

(7) A Participant's S & MS Deferred Compensation Account shall be paid to the Participant no later than the January 5 next preceding the Participant's 80th birthday.

(8) In no event will payments of amounts in the Participant's NG BEP Account and the S & MS Deferred Compensation Account be accelerated or deferred beyond the payment schedule provided under the Merged Plans. However, any election to change the time or form of payment for such an amount may be made based on the terms of the relevant Merged Plan as in effect on October 3, 2004.

(b) BDM Account. Distributions of a Participant's vested BDM Account balance shall be made in accordance with this Section C.2(b), and Article VI shall not apply to such distributions. A Participant shall be vested in his BDM Account balance in accordance with the vesting provisions of the BDM Plan.

(1) Timing of Payment: A Participant's vested BDM Account balance shall be distributed in accordance with elections made under the BDM Plan. For those Participants who have not commenced distributions as of April 29, 2005, payments from the BDM Account will commence at the time designated on his or her BDM enrollment and election form, unless extended prior to such date. However, if such a Participant did not elect a fixed date

(or elect the earlier of a fixed date or termination of employment), his or her vested BDM Account balance will be paid as soon as administratively practicable following termination of employment in the form designated under Section C.2(b)(2) below.

(2) Form of Payment: A Participant's vested BDM Account balance shall be paid in cash. The vested BDM Account balance will be paid in (i) a lump sum, (ii) five (5) or ten (10) substantially equal annual installments (adjusted for gains and losses), or (iii) a combination thereof, as selected by the Participant (or Beneficiary) prior to the date on which amounts are first payable to the Participant (or Beneficiary) under Section C.2(b)(1) above. If the Participant fails to designate properly the manner of payment, such payment will be made in a lump sum.

(3) Death Benefits: If a Participant dies before commencement of payment of his BDM Account balance, the entire Account balance will be paid at the times provided in Section C.2(b)(2) above to his or her Beneficiary. If a Participant dies after commencement but before he or she has received all payments from his vested BDM Account balance, the remaining installments shall be paid annually to the Beneficiary. For purposes of this Section C.2(b), a Participant's Beneficiary, unless subsequently changed, will be the designated beneficiary(ies) under the BDM Plan or if none, the Participant's spouse, if then living, but otherwise the Participant's then living descendants, if any, per stirpes, but, if none, the Participant's estate.

(4) Lost Participant: In the event that the Administrative Committee is unable to locate a Participant or Beneficiary within three years following the payment date under Section C.2(b)(1) above, the amount allocated to the Participant's BDM Account shall be forfeited. If, after such forfeiture and prior to termination of the Plan, the Participant or Beneficiary later claims such benefit, such benefit shall be reinstated without interest or earnings for the forfeiture period. In lieu of such a forfeiture, the Administrative Committee has the discretion to direct distribution of the vested BDM Account balance to any one or more or all of the Participant's next of kin, and in the proportions as the Administrative Committee determines.

(5) Committee Rules: All distributions are subject to the rules and procedures of the Administrative Committee. The Administrative Committee may also require the use of particular forms. The Administrative Committee may change its rules, procedures and forms from time to time and without prior notice to Participants.

(6) Payment Schedule: In no event will payments of amounts in the Participant's BDM Account be accelerated or deferred beyond the payment schedule provided under the BDM Plan.

(7) Application to Trustee: BDM International, Inc. set aside amounts in a grantor trust to assist it in meeting its obligations under the BDM Plan. Notwithstanding Section C.2(b)(5) above and the claims procedures provided in Section 7.8, a Participant may make application for payment of benefits under this Section C.2(b) directly to the trustee of such trust.

(c) PRC EDCP Account. Notwithstanding anything to the contrary, the following provisions in this Section C.2(c) summarize the distribution rules in effect under the PRC Plan with respect to the PRC EDCP Account balances, and those PRC Plan distribution terms shall continue to govern the distributions of the PRC EDCP Account balances. Article VI and Appendix B shall not apply to the PRC EDCP Account balances. Nothing in this Section C.2(c) shall change or alter the distribution terms of the PRC Plan in effect as of any date. All capitalized terms in this Section C.2(c) not otherwise defined in the Plan shall be defined in accordance with the terms of the PRC Plan as in effect immediately prior to the PRC Plan's merger with the Plan on November 9, 2012.

(1) Vesting. All Participants are vested in their PRC EDCP Account balances in accordance with the vesting provisions of the PRC Plan.

(2) Fixed Payment Dates; Termination of Employment. A Participant's vested PRC EDCP Account balance shall be distributed in accordance with his elections made under the PRC Plan. However, if such a Participant did not elect a fixed date or termination of employment with all Employers (or elect the earlier of a fixed date or termination of employment) for any particular portion of his or her vested PRC EDCP Account, such portion of his or her PRC EDCP Account balance will be valued and payable at or commence at such Participant's termination of employment according to the provisions of Sections C.2(c)(4) and (5).

(3) Hardship Distributions. In the event of financial hardship of the Participant, as hereinafter defined, the Participant may apply to the Administrative Committee for the distribution of all or any part of his or her vested PRC EDCP Account. The Administrative Committee shall consider the circumstances of each such case, and the best interests of the Participant and his or her family, and shall have the right, in its sole and absolute discretion, if applicable, to allow such distribution, or, if applicable, to direct a distribution of part of the amount requested, or to refuse to allow any distribution. Upon a finding of financial hardship, the Administrative Committee shall make or cause the appropriate distribution to be made to the Participant from amounts held by the Company or the Trustee in respect of the Participant's vested PRC EDCP Account. In no event shall the aggregate amount of the distribution exceed either the full value of the Participant's vested PRC EDCP Account or the amount determined by the Administrative Committee, in its sole and absolute discretion, to be necessary to alleviate the Participant's financial hardship (which financial hardship may be considered to include any taxes due because of the distribution occurring because of this Section), and which is not reasonably available from other resources of the Participant. For purposes of this Section, the value of the Participant's vested PRC EDCP Account shall be determined as of the date of the distribution. "Financial hardship" means (i) a severe financial hardship to the Participant resulting from a sudden and unexpected illness or accident of the Participant or of a dependent (as defined in Code section 152(a)) of the Participant, (ii) loss of the Participant's property due to casualty, or (iii) other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Participant, each as determined to exist by the Administrative Committee. A distribution may be made under this Section only with the consent of the Administrative Committee.

(4) Amount and Time of Payment. Subject to Section C.2(c)(3), a Participant (or his or her Beneficiary) shall become entitled to receive a vested PRC EDCP Sub-Account balance commencing on the Payment Date for such sub-account. For this purpose, the "Payment Date" will be the relevant date or event triggering payment as provided under Section C.2(c)(2). Notwithstanding the foregoing, a Participant may elect to postpone a Payment Date to a later date, provided the election is made at least 12 months prior to the scheduled Payment Date. For example, a Participant could elect (i) to postpone a fixed payment date to a later fixed payment date, or (ii) elect to postpone the payment date for an amount payable upon termination of employment to a date that necessarily occurs after termination of employment (e.g., two years after termination of employment). There is no limit on the number of such elections a Participant may make. Any payment due hereunder from the Trust which is not paid by the Trust for any reason will be paid by the Employer from its general assets.

(5) Method of Payment.

(i) Form of Payment. Unless otherwise elected by the Participant and permitted by the Trustee in its sole and absolute discretion, a Participant's vested PRC EDCP Account balance shall be paid in cash. In the case of distributions to a Participant or his or her Beneficiary by virtue of an entitlement pursuant to Section C.2(c)(2), an aggregate amount equal to the Participant's vested PRC EDCP Sub-Account will be paid by the Trust or the Employer, as provided by Section C.2(c)(4), in a lump sum or in five (5) or ten (10) substantially equal annual installments (adjusted for gains and losses, and reduced by any required withholding or other deductions from such payments), as selected by the Participant on his or her Participant Enrollment and Election Form for such sub-account. If the Participant fails to designate properly the manner of payment, such payment will be made in a lump sum.

If a Participant receiving installment distributions pursuant to Section C.2(c)(7) is re-employed by the Employer, the remaining distributions due to the Participant shall be suspended until such time as the Participant (or his or her Beneficiary) once again becomes eligible for benefit payments, at which time such distribution shall commence, subject to the limitations and conditions contained in the PRC Plan.

(ii) Subsequent Deferral Elections. Such form of payment may be changed by the Participant provided (A) the election is made at least 12 months prior to the payment date for the PRC EDCP Sub-Account provided under Section C.2(c)(4) and (B) the form of payment is not accelerated (i.e., an election of installments may not be changed to a lump sum and an election of 10 annual installments may not be changed to 5 annual installments). There is no limit on the number of such elections a Participant may make.

(6) Death Benefits. If a Participant dies before terminating his or her employment with the Employer and before the commencement of payments to the Participant hereunder, the entire value of the Participant's PRC EDCP Account (which may include credits for insurance contract death benefits deemed to be received by the PRC EDCP Account) shall be paid, as provided in Section C.2(c)(5), to the Beneficiary designated under the Plan, unless the Employer elects a more rapid form or schedule of distribution.

Upon the death of a Participant after payments hereunder have begun but before he or she has received all payments to which he or she is entitled under the Plan, the remaining benefit payments shall be paid to the Beneficiary designated under the Plan, in the manner in which such benefits were payable to the Participant, unless the Employer elects a more rapid form or schedule of distribution.

(7) Application to Trustee. Notwithstanding Section 6.7 above and the claims procedures provided in Section 7.8, on the date or dates on which a Participant or Beneficiary is entitled to payment under Section C.2(c)(2), the Participant or Beneficiary need not make application for payment to the Administrative Committee, but instead may make application for payment directly to the Trustee who shall, subject to any restrictions or limitations contained in the Trust, pay the Participant or Beneficiary the appropriate amount directly from the Trust without the consent of PRC or the Employer. The Trustee shall report the amount of each such payment, and any withholding thereon, to the Company.

APPENDIX D – COMMITTEES AND APPOINTMENTS

Notwithstanding anything to the contrary in this Plan, effective October 25, 2011, the Chief Executive Officer of Northrop Grumman Corporation shall appoint, and shall have the power to remove, the members of (1) an Administrative Committee that shall have responsibility for administering the Plan (including as such responsibilities are described in Article VII of the Plan) and (2) an Investment Committee that shall have responsibility for overseeing any rabbi trusts or other informal funding for the Plan.

NORTHROP GRUMMAN
OFFICERS RETIREMENT ACCOUNT CONTRIBUTION PLAN

(Amended and Restated Effective as of January 1, 2015)

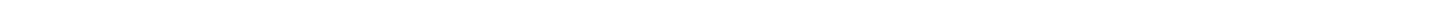


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INTRODUCTION

The Northrop Grumman Officers Retirement Account Contribution Plan (the "Plan") was adopted effective as of October 1, 2009. The Plan is hereby amended and restated effective as of January 1, 2015, except as otherwise provided. This restatement amends the January 1, 2014 restatement of the Plan.

This Plan is intended (1) to comply with section 409A of the Internal Revenue Code, as amended (the "Code") and official guidance issued thereunder, and (2) to be "a plan which is unfunded and is maintained by an employer primarily for the purpose of providing deferred compensation for a select group of management or highly compensated employees" within the meaning of sections 201(2), 301(a)(3) and 401(a)(1) of the Employee Retirement Income Security Act of 1974. Notwithstanding any other provision of this Plan, this Plan shall be interpreted, operated and administered in a manner consistent with these intentions.

ARTICLE I

DEFINITIONS

1.1 Definitions

Whenever the following words and phrases are used in this Plan, with the first letter capitalized, they shall have the meanings specified below.

"Account" shall mean the recordkeeping account set up for each Participant to keep track of amounts to his or her credit.

"Administrative Committee" means the committee in charge of Plan administration, as described in Article VI.

"Affiliated Companies" shall mean the Company and any entity affiliated with the Company under Code sections 414(b) or (c).

"Beneficiary" or "Beneficiaries" shall mean the person or persons, including a trustee, personal representative or other fiduciary, last designated in writing by a Participant in accordance with procedures established by the Administrative Committee to receive the benefits specified hereunder in the event of the Participant's death.

(a) No Beneficiary designation shall become effective until it is filed with the Administrative Committee.

(b) Any designation shall be revocable at any time through a written instrument filed by the Participant with the Administrative Committee with or without the consent of the previous Beneficiary.

No designation of a Beneficiary other than the Participant's spouse shall be valid unless consented to in writing by such spouse. If there is no such designation or if there is no surviving designated Beneficiary, then the Participant's surviving spouse shall be the

Beneficiary. If there is no surviving spouse to receive any benefits payable in accordance with the preceding sentence, the duly appointed and currently acting personal representative of the Participant's estate (which shall include either the Participant's probate estate or living trust) shall be the Beneficiary. In any case where there is no such personal representative of the Participant's estate duly appointed and acting in that capacity within 90 days after the Participant's death (or such extended period as the Administrative Committee determines is reasonably necessary to allow such personal representative to be appointed, but not to exceed 180 days after the Participant's death), then Beneficiary shall mean the person or persons who can verify by affidavit or court order to the satisfaction of the Administrative Committee that they are legally entitled to receive the benefits specified hereunder. Any payment made pursuant to such determination shall constitute a full release and discharge of the Plan, the Administrative Committee and the Company. A Participant will automatically revoke a designation of a spouse as primary beneficiary upon the dissolution of their marriage.

(c) In the event any amount is payable under the Plan to a minor, payment shall not be made to the minor, but instead be paid (1) to that person's living parent(s) to act as custodian, (2) if that person's parents are then divorced, and one parent is the sole custodial parent, to such custodial parent, or (3) if no parent of that person is then living, to a custodian selected by the Administrative Committee to hold the funds for the minor under the Uniform Transfers or Gifts to Minors Act in effect in the jurisdiction in which the minor resides. If no parent is living and the Administrative Committee decides not to select another custodian to hold the funds for the minor, then payment shall be made to the duly appointed and currently acting guardian of the estate for the minor or, if no guardian of the estate for the minor is duly appointed and currently acting within 60 days after the date the amount becomes payable, payment shall be deposited with the court having jurisdiction over the estate of the minor. Any payment made pursuant to such determination shall constitute a full release and discharge of the Plan, the Administrative Committee and the Company.

(d) Payment by the Affiliated Companies pursuant to any unrevoked Beneficiary designation, or to the Participant's estate if no such designation exists, of all benefits owed hereunder shall terminate any and all liability of the Affiliated Companies.

"Board" shall mean the Board of Directors of the Company.

"Code" shall mean the Internal Revenue Code of 1986, as amended.

"Committees" shall mean the Committees appointed as provided in Article VI.

"Company" shall mean Northrop Grumman Corporation and any successor.

"Company Contributions" shall mean credits to a Participant's Account, as described in Section 3.2.

"Compensation" shall be "compensation" as defined by Section 5.01 of the NGSP.

"Compensation Committee" shall mean the Compensation Committee of the Company's Board of Directors.

"Disability" or "Disabled" shall mean the Participant's inability to perform each and every duty of his or her occupation or position of employment due to illness or injury as determined in the sole and absolute discretion of the Administrative Committee.

"Eligible Employee" shall mean any Employee who meets the following conditions:

(a) Prior to January 1, 2015:

(1) he or she is an elected or appointed officer of an Affiliated Company other than Vinnell Corporation, Component Technologies or Premier America Credit Union;

(2) he or she is eligible to participate in the Northrop Grumman Savings Plan;

(3) he or she is not eligible to actively accrue benefits under Appendix F ("CPC SERP"), Appendix G ("OSERP"), or Appendix I ("OSERP II") of the Northrop Grumman Supplemental Plan 2; and

(4) he or she is not otherwise designated as being ineligible to participate in the Plan.

Notwithstanding the foregoing, effective October 14, 2013, a country executive outside the U.S. reporting to the Corporate Global Business Development Officer who is employed by a U.S. entity, on a U.S. payroll and participating in U.S. benefit plans and who will serve as an expatriate on an overseas assignment in this role shall be treated as an Eligible Employee.

(b) On or after January 1, 2015:

(1) he or she is an elected or appointed officer of an Affiliated Company other than Vinnell Corporation, Component Technologies or Premier America Credit Union; and

(2) he or she is eligible to participate in the Northrop Grumman Savings Plan; and

(3) he or she is not otherwise designated as being ineligible to participate in the Plan.

Notwithstanding the foregoing, (i) a country executive outside the U.S. reporting to the Corporate Global Business Development Officer who is employed by a U.S. entity, on a U.S. payroll and participating in U.S. benefit plans and who will serve as an expatriate on an overseas assignment in this role shall be treated as an Eligible Employee, and (ii) an executive on U.S. payroll who was serving as a Company Vice President and continues employment as an executive but in a non-Vice President position during secondment to an affiliated company shall be treated as an Eligible Employee able to continue participation in the Plan at the same level as appointed officers of the Company, subject to a designation of eligibility (or subsequent

ineligibility) by either the Company's Chief Human Resources Officer or the Vice President of Compensation (as such titles may be modified from time to time).

"Employee" shall mean any common law employee of the Affiliated Companies who is classified as an employee by the Affiliated Companies.

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as it may be amended from time to time.

"Investment Committee" means the committee in charge of investment aspects of the Plan, as described in Article VI.

"Key Employee" means an employee who on the date of his Separation from Service is treated as a "specified employee" under Code section 409A in accordance with a uniform Company policy.

"NGSP" means the Northrop Grumman Savings Plan.

"Participant" shall mean any Eligible Employee who participates in this Plan in accordance with Article II.

"Plan" shall be the Northrop Grumman Officers Retirement Account Contribution Plan.

"Separation from Service" means a "separation from service" within the meaning of Code section 409A.

ARTICLE II

PARTICIPATION

2.1 In General

(a) An Employee shall automatically become a Participant and eligible for Company Contributions as of the later of October 1, 2009 or the date the Employee becomes an Eligible Employee.

(b) An individual will cease to be a Participant when he or she no longer has a positive balance in his or her Account.

2.2 Disputes as to Employment Status

(a) Because there may be disputes about an individual's proper status as an Employee or non-Employee, this Section describes how such disputes are to be handled with respect to Plan participation.

(b) The Affiliated Companies will make the initial determination of an individual's employment status.

(1) If an individual is not treated by the Affiliated Companies as a common law employee, then the Plan will not consider the individual to be an "Eligible Employee" and he or she will not be entitled to participate in the Plan.

(2) This will be so even if the individual is told he or she is entitled to participate in the Plan and given a summary of the plan or other actions are taken indicating that he or she may participate.

(c) Disputes may arise as to an individual's employment status. As part of the resolution of the dispute, an individual's status may be changed by the Affiliated Companies from non-Employee to Employee. Such Employees are not Eligible Employees and will not be entitled to participate in the Plan.

ARTICLE III

CREDITS TO ACCOUNTS

3.1 Accounts

The Administrative Committee shall establish and maintain a recordkeeping Account for each Participant under the Plan.

3.2 Company Contribution Credits

If a Participant qualifies as an Eligible Employee during a payroll period, the Participant's Account shall be credited with a Company Contribution as soon as practicable after the end of the payroll period. The Company Contribution for a payroll period shall equal 4% of the Participant's Compensation for the payroll period.

3.3 Earnings Credits

A Participant's Account will be periodically credited with earnings, gains and losses as if the Account was invested in accordance with the Participant's investment election that applies to both his Account and to Company contributions under the Northrop Grumman Savings Excess Plan (the "SEP"). If a Participant has not made such an investment election, his Account will be credited with earnings, gains and losses as if the Account was invested in the qualified default investment alternative ("QDIA") that applies to the Participant under the NGSP unless and until the Participant makes such an investment election under the ORAC or the Plan.

3.4 Valuation of Accounts

(a) The valuation of Participants' Accounts will reflect earnings, losses, expenses and distributions, and will be made in accordance with the rules and procedures of the Administrative Committee.

(b) The Administrative Committee may set regular valuation dates and times and also use special valuation dates and times and procedures from time to time under unusual circumstances and to protect the financial integrity of the Plan.

(c) The Administrative Committee may use averaging methods to determine values and accrue estimated expenses.

(d) The Administrative Committee may change its valuation rules and procedures from time to time and without prior notice to Participants.

3.5 Use of a Trust

The Company may set up a trust to hold any assets or insurance policies that it may use in meeting its obligations under the Plan. Any trust set up will be a rabbi trust and any assets placed in the trust shall continue for all purposes to be part of the general assets of the Company and shall be available to its general creditors in the event of the Company's bankruptcy or insolvency.

3.6 Investment Return Not Guaranteed

Investment performance under the Plan is not guaranteed at any level. Participants may lose all or a portion of the Company Contributions credited to their Accounts due to poor investment performance.

ARTICLE IV

VESTING AND FORFEITURES

4.1 In General

Except as provided in Section 4.2 below, a Participant shall become fully vested in his or her Account balance upon the earliest of the following dates, provided he or she is an Employee at such time: (i) the date he or she completes three years of service, (ii) the date of his or her 65th birthday, (iii) the date of his or her death, (iv) the date he or she becomes Disabled, or (v) the date Company Contributions are completely discontinued or the Plan is terminated. Notwithstanding the foregoing, any elected or appointed officer of an Affiliated Company as of December 31, 2011 shall be 100% vested in his or her Account balance upon entry to the Plan if the officer becomes a Participant in the Plan on January 1, 2015. Notwithstanding anything to the contrary, if a Participant terminates employment with the Affiliated Companies prior to vesting as set forth in this Section 4.1, his or her unvested Account balance and earnings thereon shall be immediately forfeited upon such termination. For this purpose, years of service shall be

calculated in the same manner as for purposes of determining vesting in Retirement Account Contributions under the NGSP (including the treatment of a break in service).

4.2 Exceptions

The following exceptions apply to the vesting rules in Sections 4.1 above:

- (a) Forfeitures on account of a lost payee. See Section 5.5.
- (b) Forfeitures under an escheat law.
- (c) Recapture of amounts improperly credited to a Participant's Account or improperly paid to or with respect to a Participant.
- (d) Expenses charged to a Participant's Account.
- (e) Investment losses.

ARTICLE V
DISTRIBUTIONS

5.1 Normal Distribution Rules

The vested balance in a Participant's Account shall be distributed in a lump sum upon a Participant's Separation from Service. Notwithstanding the foregoing, distribution will not be made to a Key Employee upon a Separation from Service until the date which is six months after the date of the Key Employee's Separation from Service (or, if earlier, the date of death of the Key Employee).

5.2 Effect of Taxation

If a Participant's benefits under the Plan are includible in income pursuant to Code section 409A, the Company shall have the discretion to accelerate the distribution of all or a portion of such includible benefits to the Participant, provided that the Participant shall not be given a direct or indirect election as to whether such discretion is exercised.

5.3 Permitted Delays

Notwithstanding the foregoing, any payment to a Participant under the Plan shall be delayed upon the Administrative Committee's reasonable anticipation of one or more of the following events:

- (a) The Company's deduction with respect to such payment would be eliminated by application of Code section 162(m); or
- (b) The making of the payment would violate Federal securities laws or other applicable law;

(c) provided, that any payment delayed pursuant to this Section 5.3 shall be paid in accordance with Code section 409A.

5.4 Payments Not Received At Death

In the event of the death of a Participant before receiving a payment, payment will be made to his or her estate if death occurs on or after the date of a check that has been issued by the Company. Otherwise, payment of the amount will be made to the Participant's Beneficiary.

5.5 Inability to Locate Participant

In the event that the Administrative Committee is unable to locate a Participant or Beneficiary within two years following the required payment date, the amount allocated to the Participant's Account shall be forfeited.

5.6 Committee Rules

All distributions are subject to the rules and procedures of the Administrative Committee. The Administrative Committee may also require the use of particular forms. The Administrative Committee may change its rules, procedures and forms from time to time and without prior notice to Participants.

ARTICLE VI
ADMINISTRATION

6.1 Committees

(a) The Administrative Committee shall be appointed by the Company.

(b) An Investment Committee (referred to together with the Administrative Committee as, the "Committees"), comprised of one or more persons, shall be appointed by and serve at the pleasure of the Board (or its delegate). The number of members comprising the Investment Committee shall be determined by the Board, which may from time to time vary the number of members. A member of the Investment Committee may resign by delivering a written notice of resignation to the Board. The Board may remove any member by delivering a certified copy of its resolution of removal to such member. Vacancies in the membership of the Investment Committee shall be filled promptly by the Board.

6.2 Committee Action

Each Committee shall act at meetings by affirmative vote of a majority of the members of that Committee. Any determination of action of a Committee may be made or taken by a majority of a quorum present at any meeting thereof, or without a meeting, by resolution or written memorandum signed by a majority of the members of the Committee then in office. A member of a Committee shall not vote or act upon any matter which relates solely to himself or herself as a Participant. The Chairman or any other member or members of each Committee

designated by the Chairman may execute any certificate or other written direction on behalf of the Committee of which he or she is a member.

The Company shall appoint a Chairman from among the members of the Administrative Committee and a Secretary who may or may not be a member of the Administrative Committee. The Administrative Committee shall conduct its business according to the provisions of this Article and the rules contained in the current edition of Robert's Rules of Order or such other rules of order the Administrative Committee may deem appropriate. The Administrative Committee shall hold meetings from time to time in any convenient location.

6.3 Powers and Duties of the Administrative Committee

The Administrative Committee shall enforce the Plan in accordance with its terms, shall be charged with the general administration of the Plan, and shall have all powers necessary to accomplish its purposes, including, but not by way of limitation, the following:

- (a) To construe and interpret the terms and provisions of this Plan and make all factual determinations;
- (b) To compute and certify to the amount and kind of benefits payable to Participants and their Beneficiaries;
- (c) To maintain all records that may be necessary for the administration of the Plan;
- (d) To provide for the disclosure of all information and the filing or provision of all reports and statements to Participants, Beneficiaries or governmental agencies as shall be required by law;
- (e) To make and publish such rules for the regulation of the Plan and procedures for the administration of the Plan as are not inconsistent with the terms hereof;
- (f) To appoint a Plan administrator or any other agent, and to delegate to them such powers and duties in connection with the administration of the Plan as the Administrative Committee may from time to time prescribe (including the power to subdelegate);
- (g) To exercise powers granted the Administrative Committee under other Sections of the Plan; and
- (h) To take all actions necessary for the administration of the Plan, including determining whether to hold or discontinue insurance policies purchased in connection with the Plan.

6.4 Powers and Duties of the Investment Committee

The Investment Committee shall have all powers necessary to accomplish its purposes, including, but not by way of limitation, the following:

- (a) To oversee any rabbi trust; and

(b) To appoint agents, and to delegate to them such powers and duties in connection with its duties as the Investment Committee may from time to time prescribe (including the power to subdelegate).

6.5 Construction and Interpretation

The Administrative Committee shall have full discretion to construe and interpret the terms and provisions of this Plan, to make factual determinations and to remedy possible inconsistencies and omissions. The Administrative Committee's interpretations, constructions and remedies shall be final and binding on all parties, including but not limited to the Affiliated Companies and any Participant or Beneficiary. The Administrative Committee shall administer such terms and provisions in a uniform and nondiscriminatory manner and in full accordance with any and all laws applicable to the Plan.

6.6 Information

To enable the Committees to perform their functions, the Affiliated Companies adopting the Plan shall supply full and timely information to the Committees on all matters relating to the compensation of all Participants, their death or other events that cause termination of their participation in this Plan, and such other pertinent facts as the Committees may require.

6.7 Committee Compensation, Expenses and Indemnity

(a) The members of the Committees shall serve without compensation for their services hereunder.

(b) The Committees are authorized to employ such accounting, consultants or legal counsel as they may deem advisable to assist in the performance of their duties hereunder.

(c) To the extent permitted by ERISA and applicable state law, the Company shall indemnify and hold harmless the Committees and each member thereof, the Board and any delegate of the Committees who is an employee of the Affiliated Companies against any and all expenses, liabilities and claims, including legal fees to defend against such liabilities and claims arising out of their discharge in good faith of responsibilities under or incident to the Plan, other than expenses and liabilities arising out of willful misconduct. This indemnity shall not preclude such further indemnities as may be available under insurance purchased by the Company or provided by the Company under any bylaw, agreement or otherwise, as such indemnities are permitted under ERISA and state law.

6.8 Claims

The Company's standardized "Northrop Grumman Nonqualified Retirement Plans Claims and Appeals Procedures" (the "Claims Procedures") shall apply in handling claims and appeals under this Plan.

ARTICLE VII

MISCELLANEOUS

7.1 Unsecured General Creditor

Participants and their Beneficiaries, heirs, successors, and assigns shall have no legal or equitable rights, claims, or interest in any specific property or assets of the Affiliated Companies. No assets of the Affiliated Companies shall be held in any way as collateral security for the fulfilling of the obligations of the Affiliated Companies under this Plan. Any and all of the Affiliated Companies' assets shall be, and remain, the general unpledged, unrestricted assets of the Affiliated Companies. The obligation under the Plan of the Affiliated Companies adopting the Plan shall be merely that of an unfunded and unsecured promise of those Affiliated Companies to pay money in the future, and the rights of the Participants and Beneficiaries shall be no greater than those of unsecured general creditors. It is the intention of the Affiliated Companies that this Plan be unfunded for purposes of the Code and for purposes of Title I of ERISA.

7.2 Restriction Against Assignment

(a) The Company shall pay all amounts payable hereunder only to the person or persons designated by the Plan and not to any other person or corporation. No part of a Participant's Accounts shall be liable for the debts, contracts, or engagements of any Participant, his or her Beneficiary, or successors in interest, nor shall a Participant's Accounts be subject to execution by levy, attachment, or garnishment or by any other legal or equitable proceeding, nor shall any such person have any right to alienate, anticipate, sell, transfer, commute, pledge, encumber, or assign any benefits or payments hereunder in any manner whatsoever. If any Participant, Beneficiary or successor in interest is adjudicated bankrupt or purports to anticipate, alienate, sell, transfer, commute, assign, pledge, encumber or charge any distribution or payment from the Plan, voluntarily or involuntarily, the Administrative Committee, in its discretion, may cancel such distribution or payment (or any part thereof) to or for the benefit of such Participant, Beneficiary or successor in interest in such manner as the Administrative Committee shall direct.

(b) The actions considered exceptions to the vesting rule under Section 4.2 will not be treated as violations of this Section.

(c) Notwithstanding the foregoing, all or a portion of a Participant's vested Account balance may be paid to another person as specified in a domestic relations order that the Administrative Committee determines is qualified (a "Qualified Domestic Relations Order"). For this purpose, a Qualified Domestic Relations Order means a judgment, decree, or order (including the approval of a settlement agreement) which is:

- (1) issued pursuant to a State's domestic relations law;
- (2) relates to the provision of child support, alimony payments or marital property rights to a spouse, former spouse, child or other dependent of the Participant;
- (3) creates or recognizes the right of a spouse, former spouse, child or other dependent of the Participant to receive all or a portion of the Participant's benefits under the Plan; and

(4) meets such other requirements established by the Administrative Committee.

The Administrative Committee shall determine whether any document received by it is a Qualified Domestic Relations Order. In making this determination, the Administrative Committee may consider the rules applicable to "domestic relations orders" under Code section 414(p) and ERISA section 206(d), and such other rules and procedures as it deems relevant.

7.3 Restriction Against Double Payment

If a court orders an assignment of benefits despite Section 7.2, the affected Participant's benefits will be reduced accordingly. The Administrative Committee may use any reasonable actuarial assumptions to accomplish the offset under this Section.

7.4 Withholding

There shall be deducted from each payment made under the Plan or any other compensation payable to the Participant (or Beneficiary) all taxes, which are required to be withheld by the Affiliated Companies in respect to such payment or this Plan. The Affiliated Companies shall have the right to reduce any payment (or compensation) by the amount of cash sufficient to provide the amount of said taxes.

7.5 Amendment, Modification, Suspension or Termination

The Company may, in its sole discretion, terminate, suspend or amend this Plan at any time or from time to time, in whole or in part for any reason. Notwithstanding the foregoing, no amendment or termination of the Plan shall reduce the amount of a Participant's Account balance as of the date of such amendment or termination. Upon termination of the Plan, distribution of balances in Accounts shall be made to Participants and Beneficiaries in the manner and at the time described in Article V, unless the Company determines in its sole discretion that all such amounts shall be distributed upon termination in accordance with the requirements under Code section 409A.

7.6 Governing Law

To the extent not preempted by ERISA, this Plan shall be construed, governed and administered in accordance with the laws of Delaware.

7.7 Receipt and Release

Any payment to a payee in accordance with the provisions of the Plan shall, to the extent thereof, be in full satisfaction of all claims against the Plan, the Committees and the Affiliated Companies. The Administrative Committee may require such payee, as a condition precedent to such payment, to execute a receipt and release to such effect.

7.8 Payments on Behalf of Persons Under Incapacity

In the event that any amount becomes payable under the Plan to a person who, in the sole judgment of the Administrative Committee, is considered by reason of physical or mental condition to be unable to give a valid receipt therefore, the Administrative Committee may direct that such payment be made to any person found by the Committee, in its sole judgment, to have assumed the care of such person. Any payment made pursuant to such determination shall constitute a full release and discharge of the Administrative Committee and the Company.

7.9 Limitation of Rights and Employment Relationship

Neither the establishment of the Plan, any trust nor any modification thereof, nor the creating of any fund or account, nor the payment of any benefits shall be construed as giving to any Participant, or Beneficiary or other person any legal or equitable right against the Affiliated Companies or any trustee except as provided in the Plan and any trust agreement; and in no event shall the terms of employment of any Employee or Participant be modified or in any way be affected by the provisions of the Plan and any trust agreement.

7.10 Headings

Headings and subheadings in this Plan are inserted for convenience of reference only and are not to be considered in the construction of the provisions hereof.

7.11 Liabilities Transferred to HII

Northrop Grumman Corporation distributed its interest in Huntington Ingalls Industries, Inc. ("HII") to its shareholders on March 31, 2011 (the "HII Distribution Date"). Pursuant to an agreement between Northrop Grumman Corporation and HII, on the HII Distribution Date certain employees and former employees of HII ceased to participate in the Plan and the liabilities for these participants' benefits under the Plan were transferred to HII. On and after the HII Distribution Date, the Company and the Plan, and any successors thereto, shall have no further obligation or liability to any such participant with respect to any benefit, amount, or right due under the Plan.

ARTICLE VIII

FORFEITURE OF BENEFITS

8.1 In General

Notwithstanding any other provision of this Plan, this Article VIII applies to the portion of a Participant's Account balance accrued after 2011.

8.2 Determination of a Forfeiture Event

The Compensation Committee or its delegate will, in its sole discretion, determine whether a Forfeiture Event (as defined in Section 8.4) has occurred; provided that no Forfeiture Event shall be incurred by a Participant who has a termination of employment due to mandatory retirement pursuant to Company policy. Such a determination may be made by the Compensation Committee or its delegate for up to one year following the date that the Compensation Committee has actual knowledge of the circumstances that could constitute a Forfeiture Event.

8.3 No Forfeiture Event for Certain Terminations after Change in Control

Notwithstanding the foregoing, no Forfeiture Event shall be incurred by a Participant who, within the two year period following a Change in Control (as defined in the Northrop Grumman 2011 Long-Term Incentive Stock Plan or successor plan in effect at the time the relevant event occurs ("LTISP")), is involuntarily terminated for reasons other than Cause or voluntarily terminates for Good Reason. The terms "Cause" and "Good Reason" shall be defined in accordance with the LTISP and its associated grant certificates. This Article VIII may not be amended during the two year period commencing on the date of such a Change in Control.

8.4 Forfeiture Event Defined

A "Forfeiture Event" means that, while employed by any of the Affiliated Companies or at any time in the two year period immediately following the Participant's last day of employment by one of the Affiliated Companies, the Participant, either directly or indirectly through any other person, is employed by, renders services (as a director, consultant or otherwise) to, has any ownership interest in, or otherwise participates in the financing, operation, management or control of, any business that is then in competition with the business of any of the Affiliated Companies. A Participant will not, however, be considered to have incurred a Forfeiture Event solely by reason of owning up to (and not more than) two percent (2%) of any class of capital stock of a corporation that is registered under the Securities Exchange Act of 1934.

8.5 Amount of Forfeiture

(a) If the Compensation Committee or its delegate determines that a Forfeiture Event has occurred, the relevant Participant may forfeit up to 100% of his or her Account balance accrued after 2011. The amount forfeited, if any, will be determined by the Compensation Committee or its delegate in its sole discretion, and may consist of all or a portion of the Account balance accrued after 2011 and not yet paid.

(b) Any forfeiture pursuant to this Article VIII will also apply with respect to survivor benefits or benefits assigned under a Qualified Domestic Relations Order.

8.6 Notice and Claims Procedure

(a) The Company will provide timely notice to any Participant who incurs a forfeiture pursuant to this Article VIII. Any delay by the Company in providing such notice will

not otherwise affect the amount or timing of any forfeiture determined by the Compensation Committee or its delegate.

(b) The procedures set forth in the Claims Procedures will apply to any claims and appeals arising out of or related to any forfeiture under this Article VIII, except as provided below:

(1) The Compensation Committee, or its delegate, will serve in place of the designated decision-makers on any such claims and appeals.

(2) After a claimant has exhausted his remedies under the Claims Procedures, including the appeal stage, the claimant forgoes any right to file a civil action under ERISA section 502(a), but instead may present any claims arising out of or related to any forfeiture under this Article VIII to final and binding arbitration in the manner described below:

(A) A claimant must file a demand for arbitration no later than one year following a final decision on the appeal under the Claims Procedures. After such period, no claim for arbitration may be filed, and the decision becomes final. A claimant must deliver a demand for arbitration to the Company's General Counsel.

(B) Any claims presented shall be settled by arbitration consistent with the Federal Arbitration Act, and consistent with the then-current Arbitration Rules and Procedures for Employment Disputes, or equivalent, established by JAMS, a provider of private dispute resolution services.

(C) The parties will confer to identify a mutually acceptable arbitrator. If the parties are unable to agree on an arbitrator, the parties will request a list of proposed arbitrators from JAMS and:

(i) If there is an arbitrator on the list acceptable to both parties, that person will be selected. If there is more than one arbitrator on the list acceptable to both parties, each party will rank each arbitrator in order of preference, and the arbitrator with the highest combined ranking will be selected.

(ii) If there is no arbitrator acceptable to both parties on the list, the parties will alternately strike names from the list until only one name remains, who will be selected.

(D) The fees and expenses of the arbitrator will be borne equally by the claimant and the Company. Each side will be entitled to use a representative, including an attorney, at the arbitration. Each side will bear its own deposition, witness, expert, attorneys' fees, and other expenses to the same extent as if the matter were being heard in court. If, however, any party prevails on a claim, which (if brought in court) affords the prevailing party attorneys' fees and/or costs, then the arbitrator may

award reasonable fees and/or costs to the prevailing party to the same extent as would apply in court. The arbitrator will resolve any dispute as to who is the prevailing party and as to the reasonableness of any fee or cost.

(E) The arbitrator will take into account all comments, documents, records, other information, arguments, and theories submitted by the claimant relating to the claim, or considered by the Compensation Committee or its delegate relating to the claim, but only to the extent that it was previously provided as part of the initial decision or appeal request on the claim.

The arbitrator may grant a claimant's claim only if the arbitrator determines it is justified based on: (i) the Compensation Committee, or its delegate erred upon an issue of law in the appeal request, or (ii) the Compensation Committee's, or its delegate's, findings of fact during the appeal process were not supported by the evidence.

(F) The arbitrator shall issue a written opinion to the parties stating the essential findings and conclusions upon which the arbitrator's award is based. The decision of the arbitrator will be final and binding upon the claimant and the Company. A reviewing court may only confirm, correct, or vacate an award in accordance with the standards set forth in the Federal Arbitration Act, 9 U.S.C. §§ 1-16.

(G) In the event any court finds any portion of this procedure to be unenforceable, the unenforceable section(s) or provision(s) will be severed from the rest, and the remaining section(s) or provisions(s) will be otherwise enforced as written.

8.7 Application

Should a Forfeiture Event occur, this Article VIII is in addition to, and does not in any way limit, any other right or remedy of the Affiliated Companies, at law or otherwise, in connection with such Forfeiture Event.

* * *

IN WITNESS WHEREOF, this Plan is hereby executed by a duly authorized officer on this 12th day of November, 2015.

NORTHROP GRUMMAN CORPORATION

By: /s/ Denise Peppard_____

Denise Peppard

Corporate Vice President and
Chief Human Resources Officer

APPENDIX A – COMMITTEES AND APPOINTMENTS

Notwithstanding anything to the contrary in this Plan, effective as of October 25, 2011, the Chief Executive Officer of the Company shall appoint, and shall have the power to remove, the members of (1) an Administrative Committee that shall have responsibility for administering the Plan (including as such responsibilities are described in Article VI of the Plan) and (2) an Investment Committee that shall have responsibility for overseeing any rabbi trusts or other informal funding for the Plan.

NORTHROP GRUMMAN CORPORATION
COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES

<i>\$ in millions</i>	Year Ended December 31				
Earnings:	2015	2014	2013	2012	2011
Earnings from continuing operations before income taxes	\$ 2,790	\$ 2,937	\$ 2,863	\$ 2,965	\$ 3,083
Fixed Charges:					
Interest expense, including amortization of debt premium	301	282	257	212	221
Portion of rental expenses on operating leases deemed to be representative of the interest factor	101	101	99	116	140
Earnings from continuing operations before income taxes and fixed charges	\$ 3,192	\$ 3,320	\$ 3,219	\$ 3,293	\$ 3,444
Fixed Charges:	\$ 402	\$ 383	\$ 356	\$ 328	\$ 361
Ratio of earnings to fixed charges	7.9	8.7	9.0	10.0	9.5

NORTHROP GRUMMAN CORPORATION SUBSIDIARIES

**Address for all subsidiaries is:
 c/o NORTHROP GRUMMAN CORPORATION
 Office of the Secretary
 2980 Fairview Park Drive
 Falls Church, Virginia 22042**

Name of Subsidiary	Jurisdiction of Incorporation	Ownership Percentage
Northrop Grumman Systems Corporation	Delaware	100%

The company has additional subsidiaries, which considered in the aggregate or as a single subsidiary, do not constitute a significant subsidiary.

All the above listed subsidiaries have been consolidated in the company's consolidated financial statements.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Northrop Grumman Corporation
2980 Fairview Park Drive
Falls Church, Virginia 22042

We 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, and 333-175798 on Forms S-8; and Registration Statement Nos. 333-175818 and 333-196238 on Form S-3; of our reports dated February 1, 2016, relating to the financial statements of Northrop Grumman Corporation and the effectiveness of Northrop Grumman Corporation's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Northrop Grumman Corporation for the year ended December 31, 2015.

/s/ Deloitte & Touche LLP
McLean, Virginia
February 1, 2016

**POWER OF ATTORNEY IN CONNECTION WITH THE
2015 ANNUAL REPORT ON FORM 10-K**

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned directors and officers of NORTHROP GRUMMAN CORPORATION, a Delaware corporation, does hereby appoint SHEILA C. CHESTON 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, 2015 (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 1st day of February 2016.

/s/ Marianne C. Brown	Director
Marianne C. Brown	
/s/ Victor H. Fazio	Director
Victor H. Fazio	
/s/ Donald E. Felsing	Director
Donald E. Felsing	
/s/ Bruce S. Gordon	Director
Bruce S. Gordon	
/s/ William H. Hernandez	Director
William H. Hernandez	
/s/ Madeleine A. Kleiner	Director
Madeleine A. Kleiner	
/s/ Karl J. Krapek	Director
Karl J. Krapek	
/s/ Richard B. Myers	Director
Richard B. Myers	
/s/ Gary Roughead	Director
Gary Roughead	
/s/ Thomas M. Schoewe	Director
Thomas M. Schoewe	
/s/ James S. Turley	Director
James S. Turley	

/s/ Wesley G. Bush

Wesley G. Bush

Chairman, Chief Executive Officer and President
(Principal Executive Officer)

/s/ Kenneth L. Bedingfield

Kenneth L. Bedingfield

Corporate Vice President and Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
RULE 13a-15(e)/15d-15(e) OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Wesley G. Bush, 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; and
 - d) 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; and
5. 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; and
 - b) 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: February 1, 2016

/s/ Wesley G. Bush

Wesley G. Bush

Chairman, Chief Executive Officer and President

**CERTIFICATION PURSUANT TO
RULE 13a-15(e)/15d-15(e) OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Kenneth L. Bedingfield, 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; and
 - d) 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; and
5. 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; and
 - b) 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: February 1, 2016

/s/ Kenneth L. Bedingfield

Kenneth L. Bedingfield

Corporate Vice President and Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Northrop Grumman Corporation (the "company") on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Wesley G. Bush, Chairman, Chief Executive Officer and President of the company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13a-15(e)/15d-15(e) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the company.

Date: February 1, 2016

/s/ Wesley G. Bush

Wesley G. Bush
Chairman, Chief Executive Officer and President

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Northrop Grumman Corporation (the "company") on Form 10-K for the year ended December 31, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kenneth L. Bedingfield, Corporate Vice President and Chief Financial Officer of the company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13a-15(e)/15d-15(e) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the company.

Date: February 1, 2016

/s/ Kenneth L. Bedingfield

Kenneth L. Bedingfield
Corporate Vice President and Chief Financial Officer

