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, 2012

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)

2980 Fairview Park Drive, Falls Church, Virginia 22042 (703) 280-2900

(Address and telephone number of principal executive offices)

Securities registered pursuant to section 12(b) of the Act:

Title of each class

Common Stock, \$1 par value

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 🛛

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

Yes 🗆

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 🗵

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 🗵

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.

(Do not check if a smaller reporting company)

Large accelerated filer 🗵

Accelerated filer \square

Non-accelerated filer \square

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

Yes □

As of June 29, 2012, 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 \$15.8 billion.

As of January 31, 2013, 237,126,501 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 2013 Annual Meeting of Stockholders are incorporated by reference in Part III of this Form 10-K.

No 🗆

No 🗆

80-0640649

(I.R.S. Employer

Identification Number)

Name of each exchange on which registered

New York Stock Exchange

No 🗆

No 🗵

Smaller reporting company \Box

No 🗵

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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 providing innovative systems, products and solutions in unmanned systems, cybersecurity; command, control, communications and computers (C4) intelligence, surveillance, and reconnaissance (C4ISR); and logistics and modernization to government and commercial customers worldwide through our four sectors: Aerospace Systems, Electronic Systems, Information Systems and Technical Services. We participate in many high-priority defense and government services programs in the United States (U.S.) and abroad. We offer a broad portfolio of capabilities and technologies that enable us to deliver innovative systems and solutions for applications that range from undersea to outer space and into cyberspace. 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 local, state, and foreign governments and domestic and international 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 the 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. Some of the most notable acquisitions during the last two decades included the acquisition of Grumman Corporation (Grumman) in 1994, 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 men to the surface of the moon. In 1996, we acquired the defense and electronics businesses of Westinghouse Electric Corporation (Westinghouse), a world leader in the development and production of sophisticated radar and other electronics and information technology company, and one of the nation's leading full-service design, engineering, construction, and life cycle supporters of major surface ships for the U.S. Navy, U.S. Coast Guard, and international navies. In 2002, we acquired TRW Inc. (TRW), 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.

Effective as of March 31, 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 acquisition of Newport News Shipbuilding and a portion of the Litton acquisition. The spinoff was the culmination of the company's decision to explore strategic alternatives for Shipbuilding, as it was determined to be in the best interests of shareholders, customers, and employees by allowing the company and Shipbuilding to pursue more effectively their respective opportunities to maximize value. As a result of the spin-off, assets, liabilities and results of operations for the former Shipbuilding segment have been reclassified as discontinued operations for all periods presented. See Note 3 to our consolidated financial statements in Part II, Item 8 for further information.

Organization

From time to time, we acquire or dispose of businesses, and realign contracts, programs or business areas among and within our operating segments that possess similar customers, expertise, and capabilities. Internal realignments are designed to more fully leverage existing capabilities and enhance development and delivery of products and services. The operating results for all periods presented have been revised to reflect these changes made through December 31, 2012. We are currently aligned into four operating segments: Aerospace Systems, Electronic Systems, Information Systems, and Technical Services. See Note 4 to our consolidated financial statements in Part II, Item 8 for further information.

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; communications; battle management; strike operations; electronic warfare; earth observation; space science; and space exploration. The

segment consists of four business areas: Unmanned Systems; Military Aircraft Systems; Space Systems; and Advanced Programs & Technology.

Unmanned Systems – designs, develops, manufactures, and integrates tactical and reconnaissance unmanned systems. Key programs include the RQ-4 Global Hawk reconnaissance system, Triton (formerly known as Broad Area Maritime Surveillance or BAMS) aircraft system, NATO Alliance Ground Surveillance, Fire Scout aircraft systems, and aerial targets.

Military Aircraft Systems – designs, develops, manufactures, and integrates airborne C4ISR, electronic warfare mission systems, long range strike and tactical aircraft systems. Key programs include E-2 Hawkeye, Joint Surveillance Target Attack Radar System (JSTARS), and the newly developed Long Endurance Multi-Intelligence Vehicle (LEMV), an optionally manned or unmanned lighter than air weapon system. Electronic warfare includes the EA-18G Growler and EA-6B Prowler airborne electronic attack weapon systems. This business area designed, developed and manufactured the B-2 Bomber and now provides sustainment and upgrade services for the B-2, which is 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 C4ISR. Key programs include the James Webb Space Telescope (JWST), Advanced Extremely High Frequency (AEHF) payload and restricted programs.

Advanced Programs & Technology – creates advanced technologies and innovative concepts to satisfy existing and emerging customer needs. This business area matures these technologies and concepts to create and capture new programs that other Aerospace Systems business areas can execute. Key programs include the Navy Unmanned Combat Air System (N-UCAS), restricted programs, and directed energy and advanced concepts programs for air, land and space applications.

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, airspace management systems, navigation systems, communications systems, marine power and propulsion systems, space systems, and logistics services. The segment consists of four business areas: Intelligence, Surveillance, Reconnaissance & Targeting Systems; Land & Self Protection Systems; Naval & Marine Systems; and Navigation Systems.

Intelligence, Surveillance, Reconnaissance & Targeting Systems – delivers products and services for space satellite applications, airborne and ground based surveillance, multi-sensor processing, analysis, and dissemination for combat units and national agencies, both domestic and international. These systems provide battle space awareness, missile defense, 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 F-16, B-1B, F-22 Active Electronically Scanned Array (AESA), F-35 AESA; EO/IR systems such as the Distributed Aperture Systems, and Litening; airborne surveillance radars such as the Multirole Electronically Scanned Array, Airborne Early Warning & Control System, Multi-Function Active Sensor for Triton, Multi-Platform Radar Technology Insertion Program; space systems such as the Space-Based Infrared System, Defense Meteorological Satellite Program, Defense Support Program, and the Scalable Space Inertial Reference Unit.

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 surveillance radars, and laser/electro-optical systems including hand-held, tripod-mounted, and ground or air vehicle mounted systems. Key programs include the Ground/Air Task Oriented Radar, the Three-Dimensional Expeditionary Long-Range Radar, the Large Aircraft Infrared Countermeasures, the Common Infrared Countermeasures system, the Apache Fire Control Radar, and the Vehicle and Dismount Exploitation Radar.

Naval & Marine Systems – delivers products and services to defense, civil, and commercial customers supporting smart navigation, shipboard radar surveillance, ship control, machinery control, 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, and nuclear reactor instrumentation and control. Key programs include AN/SPQ-9B Anti-Ship Missile Defense radar (ASMD), Integrated Bridge and Navigation Systems, Voyage Management Systems, Integrated Platform and Combat Management Systems, Inertial Navigator Systems, Virginia Class Submarine, and the Trident D5 Launch System.

Navigation Systems - delivers products and services to defense, civil, and commercial customers supporting situational awareness, inertial navigation in all domains (air, land, sea, and space), embedded Global Positioning Systems, Identification Friend or Foe (IFF) systems, acoustic sensors, advanced synthetic cockpits, cockpit video monitors, mission computing, command and control systems and integrated avionics and electronics systems. Key programs include the Integrated Avionics System, the Fiber Optics Acoustic Sensors, and the AN/TYQ-23 Aircraft and Command and Control System.

In addition to the product and service lines discussed above, the Electronic Systems segment also includes the Advanced Concepts & Technologies Division (AC&TD), which develops next-generation systems to position the segment in key developing markets. AC&TD focuses on understanding customer mission needs; conceiving affordable, innovative and open solutions; and demonstrating the readiness and effectiveness of Electronic Systems' products. The segment uses a "Product Ownership" approach, which guides the transition of new technology from laboratory to market and implements modular open system product families that are readily reconfigurable and scalable to affordably support new requirements, new products, or component obsolescence.

INFORMATION SYSTEMS

Information Systems, headquartered in McLean, Virginia, is a leading global provider of advanced solutions for the DoD, national intelligence, federal civilian, state and local agencies, and international allies, as well as certain commercial customers. Focus areas are in cybersecurity; C4ISR; intelligence processing; air and missile defense; decision support systems; information technology; and systems engineering and integration.

Within C4ISR, we are a major end-to-end provider of net-enabled Battle Management C4 systems, decision superiority, and mission-enabling solutions. Our systems are installed in operational and command centers world-wide and across DoD services and joint commands. We also deliver intelligence-related systems and services to the U.S. Government and international security community in several mission areas including Signals Intelligence (SIGINT) systems, geospatial intelligence data, multi-source intelligence data fusion and dynamic cyber defense. Key programs include Joint National Integration Center Research and Development Contract, Battlefield Airborne Communications Node, Integrated Battle Command System, Counter Narco-Terrorism Program Office, Counter Rocket and Mortar, Consolidated Afloat Networks and Enterprise Services and several restricted programs.

Cybersecurity offerings span intelligence, defense, federal civilian, state and international customers, providing specialized information systems and services in support of critical government missions. Applications are predominantly for high end intelligence and defense missions, but also include health, homeland security, public safety and civil financial applications. Most intelligence community programs are restricted. Cybersecurity defense and civil programs and customers include Virginia Information Technologies Agency, Centers for Disease Control and Enterprise Networked Services Support.

TECHNICAL SERVICES

Technical Services, headquartered in Herndon, Virginia, is a leader in innovative and affordable logistics, modernization and sustainment support, 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 three business areas: Defense and Government Services; Training Solutions; and Integrated Logistics and Modernization.

Defense and Government Services – provides 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 Intercontinental Ballistic Missile, Fort Irwin Logistics Services Support and Fort Polk Logistics Services Support.

Training Solutions – provides realistic and comprehensive training through live, virtual, and constructive domains, ranging from senior military leadership to warfighters, for both U.S. and international peacekeeping forces. The business area designs and develops future conflict training scenarios, and provides warfighters and allies with live, virtual, and constructive training programs. The business area has supported the training of America's senior battlefield commanders for every major contingency beginning with Gulf War I through ongoing operations in Afghanistan today. The business area offers innovative and diverse training applications ranging from battle command to professional military education. Key programs include the Mission Command Training Program,

Mission Command Training Centers, CTC-IS, Joint Coalition Warfighting Center, and Saudi Arabian National Guard.

Integrated Logistics and Modernization – provides complete life cycle product and weapon system sustainment and modernization. The business area focuses on providing direct support to warfighters while delivering aircraft and subsystem maintenance, repair, and overhaul (MRO); modernization of those platforms and systems; supply chain management services, warehousing and inventory transportation, field services, and on-going weapons maintenance and technical assistance. The business area specializes in quick reaction capability and deployed operations in support of customers. Key programs include EA-PUP, Hunter, Triton, FireScout, LEMV, KC-10 and JSTARs.

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 4 to the consolidated financial statements in Part II, Item 8.

CUSTOMER CONCENTRATION

Our primary customer is the U.S. Government. Revenue from the U.S. Government (which includes foreign military sales – a method to sell U.S. defense equipment and services to foreign governments through the DoD) accounted for 90 percent or more of total revenues in each of the years ended December 31, 2012, 2011 and 2010. No single product or service accounted for more than ten percent of total revenue during any period presented. See Risk Factors in Part I, Item 1A.

COMPETITIVE CONDITIONS

We compete with many companies in the defense industry and the intelligence and civil markets. Lockheed Martin Corporation, The Boeing Company, Raytheon Company, General Dynamics Corporation, L-3 Communications Corporation, SAIC, BAE Systems Inc., EADS, and Finmeccanica SpA are 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

Total backlog includes both funded backlog (firm orders for which funding is contractually obligated by the customer) 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. At December 31, 2012, total backlog was \$40.8 billion, compared with \$39.5 billion at the end of 2011. Approximately \$21.4 billion of our backlog at December 31, 2012, is expected to be converted into sales in 2013. For backlog by segment, see Backlog in Part II, Item 7.

RESEARCH AND DEVELOPMENT

Our research and development activities primarily include independent research and development (IR&D) efforts related to U.S. Government programs. Company-sponsored IR&D efforts are included in general and administrative expenses and are generally allocated to U.S. Government contracts, while customer-sponsored research and development efforts are charged directly to the related contracts. Company-sponsored IR&D expenses totaled \$520 million, \$543 million, and \$580 million in 2012, 2011, and 2010, respectively.

PATENTS

We routinely apply for and own a number of U.S. and foreign patents related to the products and services we provide. 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 generally 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. Although these intellectual property rights are important to the operation of our business, no existing patent, license or other intellectual property right is of such importance that its loss or termination would, in our opinion, have a material impact on our business. 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, that would have a notable adverse effect on the company's consolidated financial position, results of operations, or cash flows. See Risk Factors in Part I, Item 1A and Overview – Outlook in Part II, Item 7.

EMPLOYEE RELATIONS

We believe that we maintain good relations with our 68,100 employees, of which approximately 3,300 are covered by 17 collective bargaining agreements. We negotiated or re-negotiated eight of our collective bargaining agreements in 2012 and expect to re-negotiate renewals for three of our collective bargaining agreements in 2013. These negotiations had no material adverse effect on our results of operations. For risks associated with collective bargaining agreements, see Risk Factors in Part I, Item 1A.

REGULATORY MATTERS

Government Contract Regulation

Our businesses are affected by numerous laws and regulations, including those relating to the award, administration and performance of U.S. Government contracts. The U.S. Government generally has the ability to terminate our contracts, in whole or in part, without prior notice, for convenience or for default based on performance. If a U.S. Government contract were to be terminated for convenience, we generally would be protected by provisions covering reimbursement for costs incurred on the contract and profit on those costs, but not the anticipated profit that would have been earned had the contract been completed. In the unusual circumstance where a U.S. Government contract does not have such termination protection, we attempt to mitigate the termination risk through other means. Termination resulting from our default may expose us to liability and could have a material adverse effect on our ability to compete for other contracts. The U.S. Government also has the ability to stop work under a contract for a limited period of time for its convenience. In the event of a stop work order, we generally would be protected by provisions covering reimbursement for costs incurred on the contract. However, such temporary stoppages and delays could introduce inefficiencies for which we may not be able to negotiate full recovery from the U.S. Government, and could ultimately result in termination for convenience or reduced future orders on certain contracts. Additionally, we may be required to continue to perform for some period of time on certain of our U.S. Government contracts, and could ultimately result in termination for u.S. Government contracts, even if the U.S. Government is unable to make timely payments. See Risk Factors in Part I, Item 1A.

Certain programs with the U.S. Government that are prohibited by the customer from being publicly discussed in detail are referred to as "restricted" in this Form 10-K. The consolidated financial statements and financial information in this Form 10-K reflect the operating results of our entire company, including such 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. Due to the long-term nature of our contracts with the U.S. Government and the products and services covered by these contracts, we generally recognize revenue on the percentage of completion method of accounting. Under the percentage of completion method of accounting, revenues are generally recognized as costs are incurred (cost-to-cost method) or as units are delivered (units-of-delivery method). 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 Cost Accounting Standards (CAS) regulations. Examples of costs incurred by us and not billed to the U.S. Government in accordance with the requirements of the FAR and CAS regulations include, but are not limited to, certain legal costs, lobbying costs, charitable donations, advertising costs and interest expense. 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 incentive fee contracts. Cost-type contracts provide for reimbursement of the contractor's allowable costs incurred plus a 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 fees are based on performance criteria such as cost, schedule, quality, and technical performance. Award fees are determined and earned based on an evaluation by the customer of the company's performance against negotiated criteria, and are intended to provide motivation for excellence in contract performance. Incentive fees provide for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs. Award fees 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. Fixed-price incentive contracts provide for reimbursement of the contractor's allowable costs plus a fee up to a ceiling amount, but are subject to a cost-share limit that affects profitability. Fixed-price incentive contracts effectively become firm fixed-price contracts once the cost-share limit is reached. Time-and-materials contracts are considered fixed-price contracts as they specify a fixed hourly rate for each labor hour charged.

The following table summarizes revenues for the year ended December 31, 2012, recognized by contract type and customer:

	l	J.S.	Ot	her			Percent	
(\$ in millions)	Gove	Government		omers	Total		of Total	
Cost-type contracts	\$	13,732	\$	283	\$	14,015	5 6%	
Fixed-price contracts		8,976		2,227		11,203	44%	
Total sales	\$	22,708	\$	2,510	\$	25,218	100%	

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

Environmental

Our manufacturing operations are subject to and affected by federal, state, foreign, and local laws and regulations relating to the protection of the environment. The estimated cost to complete remediation is accrued when it is probable that the company will incur costs to address environmental impacts at sites where the company has been named a Potentially Responsible Party (PRP) and the costs are estimable. To assess the potential impact on the company's financial statements, management estimates the range of reasonably possible remediation costs that could be incurred by the company, taking into account the facts currently available to the company regarding each site, as well as the current state of technology and prior experience. These estimates are reviewed periodically and adjusted to reflect changes in facts and circumstances. See Risk Factors in Part I, Item 1A, as well as Note 12 to the consolidated financial statements in Part II, Item 8.

In 2009, we established a goal of reducing our greenhouse gas emissions over a five-year period through December 31, 2014. In 2010, we established goals for water usage and solid waste generation. For information on the progress towards achieving our goals, refer to our Corporate Responsibility Report on our Web site. The information contained in our Corporate Responsibility Report should not be deemed to be incorporated by reference into this report.

We have incurred and expect to continue to incur capital and operating costs to comply with applicable environmental laws and regulations and satisfy green initiatives, including our goals. At this time, these costs have not had, and we do not expect that these costs will have, a material adverse effect on our consolidated financial position, results of operations or cash flows.

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 Web site 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 Web site.

The SEC also maintains a Web site 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 Web site and the SEC's Web site 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 Web sites. 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 carefully consider the risk factors described below in evaluating the information contained in this report.

• 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, or cash flows.

Our primary customer is the U.S. Government, from which we derived more than 90 percent of our total revenues during each of the past several years. The U.S. Government is 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. A 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 cash flows.

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 but not the anticipated profit that would have been earned had the contract been completed. In some circumstances, however, a U.S. government contract does not have such termination protection. In those cases, we attempt to mitigate the termination risk through other means. To the extent such means are unavailable or do not fully address the costs incurred or profit on those costs, we could face significant losses from the termination for convenience of a contract that lacks termination protection. Termination by the U.S. Government of a contract for convenience also could result in the cancellation of future work on that program. Termination by the U.S. Government of a contract, as well as other damages. Termination of a contract due to our default may expose us to material liability and could have a material adverse effect on our ability to compete for other contracts.

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 this challenging fiscal environment. In the event of a stop work order, contractors are generally 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 for which we may not be able to negotiate full recovery from the U.S. Government, and could ultimately result in termination for convenience or reduced future orders on certain contracts. In this



challenging environment, our industry could face a significant number of terminations, change orders and stop work orders, which by their volume could further delay and jeopardize our industry's ability to recover costs.

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 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. The impact, severity and duration of the current U.S. economic situation and plans adopted by the U.S. Government, along with pressures on, and uncertainty surrounding, the federal budget 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 that government funding for any of our programs becomes unavailable, or is reduced or delayed, our contract or subcontract under such program may be terminated or adjusted by the U.S. Government or the prime contractor, which could have a material adverse effect on our financial position, results of operations and/or cash flows.

In addition, if the existing statutory limit on the amount of permissible federal debt is not raised, we may be required to continue to perform for some period of time on certain of our U.S. Government contracts even if the U.S. Government is unable to make timely payments. An extended delay in the timely payment of billings by the U.S. Government would likely result in a material adverse effect on our financial position, results of operations and cash flows.

In August 2011, Congress enacted the Budget Control Act which, while raising the existing statutory limit on the amount of permissible federal debt, also committed the U.S. Government to significantly reducing the federal deficit over ten years. The Budget Control Act established caps on discretionary spending through 2021, reducing federal spending by approximately \$1 trillion over that period relative to the fiscal year (FY) 2012 Presidential budget submission, and called for very substantial automatic spending cuts, known as "sequestration," split between defense and non-defense programs.

In January 2013, Congress enacted the American Taxpayer Relief Act of 2012. It addressed a number of tax code provisions and certain spending issues, but left in place the sequester (although delaying its implementation to March 1, 2013) and did not address other fiscal matters such as the debt ceiling. The delay in the sequester leaves the DoD less time to enact 2013 automatic spending cuts and adds to the uncertainty from such cuts. The nation's debt ceiling is currently expected to be reached during the first half of 2013. Congress and the Administration continue to debate these issues and the terms of a possible national fiscal approach. The outcome of that debate could have a significant impact on future defense spending plans. While the President's proposed FY 2014 Budget is scheduled for release in February 2013, its delivery may be delayed given these unresolved fiscal matters.

We are unable to predict the impact that the delayed automatic cuts or other defense spending cuts would have on funding for our individual programs. Longterm funding for certain programs in which we participate may be reduced, delayed or cancelled. In addition, these cuts could adversely affect the viability of our suppliers and subcontractors. While we believe that our business is well-positioned in areas that the DoD has indicated are areas of focus for future defense spending, the impact of the Budget Control Act and the ongoing fiscal debates remain uncertain and our business and industry could be materially adversely affected.

The President's proposed budget for FY 2013 represented a slight decline from FY 2012 levels. Although Congress passed a continuing resolution to fund U.S. Government operations through March 27, 2013, it is unclear whether annual appropriations bills will be passed during FY 2013. The U.S. Government may operate under a continuing resolution for all of FY 2013, potentially resulting in no new contract or program starts for that year.

The Congressional budget process has been marked by significant debate within the government regarding FY 2013 defense spending. Budget decisions made in this environment will likely have long-term consequences for our company and the entire defense industry. Should sequestration as currently mandated be implemented in March 2013, absent any other changes, we believe it would 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 the companies in the defense industrial base. There are many variables in how the law could be implemented that make it difficult to determine specific impacts; however, we expect that sequestration, as currently provided for under the Budget Control Act, would result in lower revenues, profits and cash flows for our company. Such circumstances may also result in an impairment of our goodwill.

As a U.S. Government contractor, we are subject to various procurement regulations and could be adversely affected by changes in regulations or any negative findings from a U.S. Government audit or investigation.

U.S. Government contractors must comply with many significant procurement regulations and other requirements. These regulations and requirements, although customary in government contracts, increase our performance and compliance costs. New regulations or procurement requirements (including, for example, counterfeit parts and conflict minerals) or changes to current ones, could increase our costs and risks and reduce our margins. Failure to comply with these regulations could, among other things, result in the withholding of payments and adversely impact our reputation and ability to participate in future U.S. Government contracts.

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 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, and our compliance with, our internal control systems and policies. 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 or suspension or debarment from doing business with the U.S. Government. Whether or not illegal activities are alleged, the U.S. Government also has the ability to decrease or withhold certain payments when it deems systems subject to its review to be inadequate. In addition, we could suffer serious reputational harm if allegations of impropriety were made against us. If such actions were to result in suspension or debarment, this could have a material adverse effect on our business.

We are from time to time subject to U.S. Government investigations relating to our operations, and we are subject to or 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, Cost Accounting Standards (CAS), Federal Acquisition Regulation (FAR), the International Traffic in Arms Regulations promulgated under the Arms Export Control Act, the Close the Contractor Fraud Loophole Act and the Foreign Corrupt Practices Act. 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 and the assessment of penalties, fines, or compensatory or treble damages, which could have a material adverse effect on our financial position, results of operations, or cash flows. Such matters could also result in suspension or debarment. Given our dependence on government contracting and authorizations, suspension or debarment could have a material adverse effect on our financial position, results of operations or cash flows.

Changes to business practices for U.S. Government contractors could have a significant adverse effect on current programs, potential new awards and the processes by which procurements are awarded and managed.

Our industry has experienced, and we expect it will continue to experience, significant changes to business practices as a result of an increased focus on affordability, efficiencies, and recovery of costs, among other items, and a reprioritization of available defense funds to key areas for future defense spending. For example, the DoD's Better Buying Power Initiative continues to evolve in its efforts to reduce costs, gain efficiencies, refocus priorities and enhance business practices used by the DoD, including those used to procure goods, services and solutions from defense contractors. In addition, the DCMA has implemented cost recovery initiatives designed to prioritize efforts to recover costs and close open audits. 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 are being challenged and refined.

These efforts have had, and we expect them to continue to have, a significant impact on the contracting environment in which we do business. In support of the implementation of the Better Buying Power Initiative, the U.S. Government is issuing new regulations and requirements that are shifting additional responsibility and performance risks to the contractor. While the impact to our business as a result of these changes remains uncertain, our business and industry could be materially adversely affected.

Competition within our markets and an increase in bid protests may reduce our revenues and market share.

We operate in highly competitive markets and our competitors may have more extensive or more specialized engineering, manufacturing and marketing capabilities or be willing to accept more risk or lower margins in competing for contracts. We have seen, and anticipate that we will continue to see, increased competition in some of our core markets, especially as a result of the reduction in budgets for many U.S. Government agencies and fewer new program starts. Changes in U.S. defense spending may limit certain future market opportunities. We are facing increasing competition in our domestic 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 information technology and other support work, or may utilize small business contractors or determine to source work internally rather than hiring a contractor. If we are unable to continue to compete successfully against our current or future competitors, we will experience declines in revenues and market share, which would negatively impact our financial position, results of operations, or cash flows.

We also are seeing an increasing number of bid protests from unsuccessful bidders on new program awards. Bid protests could result in significant expense to the company, contract modifications or the award decision being overturned 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.

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 meet the needs of current and future 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 and market our products and services, as well as 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 have a material adverse effect on 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. If qualified personnel become scarce, we could experience higher labor, recruiting or training costs in order to attract and retain such employees. Failure to maintain a qualified workforce would result in difficulty in performing under our contracts.

Approximately 3,300 of our 68,100 employees are covered by an aggregate of 17 collective bargaining agreements, and we expect to negotiate or re-negotiate renewals for three of our collective bargaining agreements in 2013. Collective bargaining agreements generally expire after three to five years, and are subject to renegotiation upon expiration. We may experience difficulties with renewals and renegotiations of existing collective bargaining agreements. If we experience such difficulties, we could incur additional expenses and may be subject to work stoppages. Any such expenses or delays could adversely affect programs served by employees who are covered by collective bargaining agreements.

 Many of our contracts contain performance obligations that require innovative design capabilities, are technologically complex, require stateof-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 as a result of issues with respect to design, technology, licensing and patent rights, labor, inability to achieve learning curve assumptions, manufacturing materials or components could prevent us from achieving contractual requirements.

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, premature failure of products that cannot be accessed for repair or replacement, problems with quality and workmanship, country of origin, 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 profits could be 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 partial or complete 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. We have not experienced any material losses in the last decade in connection with such contract performance incentive provisions. However, if we were to experience launch failures or complete satellite system failures in the future, for example, such events could have a material adverse effect on our financial position, results of operations, or cash flows.

Contract cost growth on fixed-price and other contracts that do not result in increased contract value exposes us to reduced profitability and the potential loss of future business.

Our operating income is adversely affected when we incur certain contract costs or certain increases in contract costs that cannot be billed to customers. This cost growth can occur if estimates to complete increase or initial estimates used for calculating the contract cost were incorrect. The cost estimation process requires significant judgment and expertise. Reasons for cost growth may include unavailability or reduced productivity of labor, the nature and complexity of the work to be performed, technical or quality issues, the timeliness and availability of materials, major subcontractor performance and quality of their products, the effect of any delays in performance, availability and timing of funding from the customer, and natural disasters. Further, items affecting our contract value may include the inability to recover any claims included in the estimates to complete. A significant change in estimates on one or more programs could have a material adverse effect on our consolidated financial position, results of operations, or cash flows.

Our risk varies with the type of contract. Due to their nature, firm fixed-price contracts inherently have more risk than cost type contracts. In 2012, approximately 44 percent of our annual revenues were derived from fixed-price contracts. We typically enter into fixed-price contracts where costs can be reasonably estimated based on experience. In addition, our contracts contain provisions relating to cost controls and audit rights. Should the terms specified in our contracts not be met, then profitability may be reduced or a loss may be incurred. Fixed-price development work comprises a small portion of our fixed-price contracts and inherently has more uncertainty as to future events than production contracts and therefore 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 generally 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.

Other contracts are also subject to risk, for example, under a fixed price incentive contract, the allowable costs incurred by the contractor are paid up to a ceiling, which can affect profitability. Further, under a cost type contract, the allowable costs incurred by the contractor are also 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. In these cases, the associated financial risks are primarily in lower profit rates or program cancellation if cost, schedule, or technical performance issues arise.

We use estimates when accounting for contracts. Changes in estimates could affect our profitability and our overall financial position.

When agreeing to contractual terms, we make assumptions and projections about future conditions and events, many of which extend over long periods. These assumptions and projections assess the cost, productivity and availability of labor, future levels of business base, complexity of the work to be performed, cost and availability of materials, impact of potential delays in performance and timing of product deliveries. 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, and are recorded when there is sufficient information to assess anticipated performance. Suppliers' assertions are also assessed and considered in estimating costs and profit rates.

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 may have a material adverse effect upon the profitability of one or more of the affected contracts and our performance. See Critical Accounting Policies, Estimates, and Judgments in Part II, Item 7.

Our earnings and margins depend, in part, on subcontractor performance as well as raw material and component availability and pricing.

We rely on other companies to provide raw materials and major components for our products and rely on subcontractors to produce hardware elements and sub-assemblies and perform some of the services that we provide to our customers. Disruptions or performance problems caused by our subcontractors and vendors could have an adverse effect on our ability to meet our commitments to customers. Our ability to perform our obligations on time as a prime contractor could be adversely affected if one or more of the vendors or subcontractors are unable to provide the agreed-upon products or materials or perform the agreed-upon services in a timely and cost-effective manner.

Our costs may increase over the term of our contracts. Through cost escalation provisions contained in some of our U.S. Government contracts, we may be protected from increases in costs to the extent that the increases in our costs are in line with industry indices. However, the difference in basis between our actual costs and these indices may expose us to cost uncertainty even with these provisions. A significant delay in supply deliveries of our key raw materials or components required in our production processes could have a material adverse effect on our financial position, results of operations, or cash flows.

In connection with our government contracts, we are required to procure certain materials, components and parts from supply sources approved by the U.S. Government. There are currently several components for which there may only be one supplier. If a sole source supplier cannot meet our needs, we may be unable to find a suitable alternative. Consistent with the industry's efforts, our procurement practices are intended to reduce the likelihood of our procurement of counterfeit parts or materials. If we are unable to procure needed materials, components or parts, or if the parts we procure are counterfeit, our financial position, results of operations, or cash flows could be materially adversely affected.

Changes in economic conditions, as well as changes in the defense budget, can adversely affect the ability of our subcontractors and suppliers to perform and further increase this risk.

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 recorded total assets. We test goodwill amounts for impairment at least annually and consider whether an interim test is required if we believe potential impairment exists. The annual impairment test is based on several factors requiring judgment. We face continued uncertainty in our business environment due to the substantial fiscal and economic challenges facing the U.S. Government, our primary customer, including the potential for sequestration and issues surrounding the national debt ceiling. Potential contract cancellations, modifications or terminations may arise from resolution of these issues and could cause our revenues, profits and cash flows to be substantially lower than our current projections. In addition, market-based inputs to the calculations in the impairment test, such as weighted average cost of capital and terminal value (based on market comparisons) could also be negatively impacted. Such circumstances may result in an impairment of our goodwill. Further, the carrying values of our reporting units are significantly influenced by a number of factors including the discount rate used to determine our net pension liability. Therefore an increase in the discount rate on our pension liability in 2013 or beyond could result in an impairment of goodwill absent any changes discussed above. We continue to monitor the recoverability of the carrying value of our goodwill and other long-lived assets.

As part of our overall strategy, we may, from time to time, acquire an interest in a business. Even after careful integration efforts, actual operating results may vary significantly from initial estimates and we may experience unforeseen issues that adversely affect the value of our goodwill or other long-lived assets.

Our international business exposes us to additional risks.

Our international business remains subject to numerous political and economic factors, regulatory requirements and other risks associated with doing business in foreign countries. Our international business is subject to U.S. and foreign laws and regulations, including, without limitation, regulations relating to import-export control, technology transfer restrictions, repatriation of earnings, exchange controls, the Foreign Corrupt Practices Act and certain other anti-corruption laws, and the anti-boycott provisions of the U.S. Export Administration Act. 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, which could have a material adverse effect on us. Changes in regulations, political environments or security risks may affect our ability to conduct business in foreign markets, including those regarding investment, procurement and repatriation of earnings. Our international business may also be impacted by changes in foreign national priorities and government budgets and may be further impacted by global economic conditions and fluctuations in foreign currency exchange rates. In addition, our international contracts may include industrial cooperation agreements requiring specific in-country purchases, investments, manufacturing agreements or other financial obligations, known as offset obligations, and provide for penalties if we fail to meet such requirements.

The services and products we provide internationally, including those provided by subcontractors, are sometimes in countries with unstable governments, in areas of military conflict or at military installations. This increases the risk of an incident resulting in harm or loss of life to our employees, subcontractors or other third parties or damage to our products. We maintain insurance and take other steps to mitigate the risk and potential liabilities related to our international operations, but these steps may not be adequate to prevent loss or to cover resulting claims and liabilities, and we may be forced to bear substantial costs (see additional discussion of possible inadequacy of our insurance coverage below). In addition, any accidents or incidents that occur in connection with our international operations could result in negative publicity for the company, which may 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 impact of these factors is difficult to predict, but one or more of them could adversely affect our financial position, results of operations, or cash flows.

• Our reputation and our ability to do business may be impacted by the improper conduct of employees, agents or business partners.

We have implemented extensive policies, procedures, training and other compliance controls to prevent misconduct by employees, agents or others with whom we are doing business 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 or others with whom we are doing business, and the risk of improper conduct may increase in the current environment. Such improper actions 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, or cash flows.

Our business could be negatively impacted by security threats, including physical and cybersecurity threats, and other disruptions.

As a defense contractor, we face various security threats, including cybersecurity threats to gain unauthorized access to sensitive information; threats to the safety of our directors, officers, and employees; threats to the security of our facilities and infrastructure; and threats from terrorist acts. Although we utilize various procedures and controls to monitor and mitigate these threats, there can be no assurance that these procedures and controls will be sufficient to prevent security threats from materializing. If any of these events were to materialize, they could lead to losses of sensitive information or capabilities, harm to personnel or infrastructure, or damage to our reputation, and could have a material adverse effect on our financial position, results of operations, or cash flows.

Cybersecurity threats are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data, denial of service attacks, and other electronic security breaches that could lead to disruptions in mission critical systems, unauthorized release of confidential or otherwise protected information and corruption of data. These events could damage our reputation and lead to financial losses from remedial actions, loss of business or potential liability.

We also manage information technology systems for various customers and other third parties. While we operate under information security policies and procedures for managing these systems, we generally face similar cybersecurity threats for these systems as for our own.

Unforeseen environmental costs could have a material adverse effect on our financial position, results of operations, 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.

Environmental laws and regulations provide for substantial fines and criminal sanctions for violations, and 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 federal and state environmental laws and regulations related to the cleanup of pollutants previously released into the environment. In addition, if we were 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 EPA on the "Excluded Parties List" maintained by the General Services Administration. The listing could continue until the EPA concludes that the cause of the violation had been corrected. If we were listed on the Excluded Parties List it could have a material adverse effect on our financial position, results of operations and cash flows. Listed facilities generally cannot be used in performing any U.S. Government contract until the violation is corrected.

The adoption of 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, sanctions or penalties, could negatively impact our ability to recover such costs under previously priced contracts or financial insolvency of other responsible parties could cause us to incur costs in the future that could have a material adverse effect on our financial position, results of operations, or cash flows.

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

The size, nature and complexity of our business make us highly susceptible to claims and litigation. We are and may become subject to various environmental claims, income tax matters, compliance matters, claims, investigations, and administrative, civil or criminal litigation, which could divert financial and management resources and result in fines, penalties, compensatory or treble damages or non-monetary relief. 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 the company's reliance on government contracts and authorizations. Investigations, claims or litigation, if ultimately resolved against us, could have a material adverse effect on our financial position, results of operations or cash flows. Any investigation, claim, or litigation, even if fully indemnified or insured, could 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.

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. The U.S. Government appears to be asserting or seeking to assert more extensive intellectual property rights. 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. If we are unable adequately to protect our intellectual property rights, against claims by the U.S. Government or others our business could be adversely affected.

Our business is subject to disruption caused by natural disasters, environmental disasters and other factors that could adversely affect our profitability and our overall financial position.

We have significant operations located in regions of the U.S. that may be exposed to earthquakes, damaging storms, and other natural disasters, including environmental disasters. Although preventative measures may help to mitigate damage, the damage and disruption resulting from natural and environmental disasters may be significant. If insurance or other risk transfer mechanisms are unavailable or insufficient to recover all costs, our financial position, results of operations, or cash flows could be materially adversely affected.

Our suppliers and subcontractors are also subject to natural disasters that could affect their ability to deliver or perform under a contract. Performance failures by our subcontractors due to natural and environmental disasters may adversely affect our ability to perform our obligations on the prime contract. This could reduce our profitability due to damages or other costs that may not be fully recoverable from the subcontractor or from the customer, could result in a termination of the prime contract and could have an adverse effect on our ability to compete for future contracts.

Natural disasters could also disrupt our workforce, electrical and other power distribution networks, including computer and internet operation and accessibility, and the critical industrial infrastructure needed for normal business operations. These disruptions could cause adverse effects on our profitability and performance.

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 of 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 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 have a material adverse effect on our financial position, results of operations, or cash flows.

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 typically subject to certain terms or limitations and may not be sufficient to cover all losses or liabilities incurred.

Anticipated benefits of mergers, acquisitions, joint ventures, spin-offs or strategic alliances may not be realized.

As part of our overall strategy, we may, from time to time, merge with or acquire businesses, dispose of or spin-off businesses, form joint ventures or create strategic alliances. Whether we realize the anticipated benefits from these transactions depends, in part, upon the integration between the businesses involved, the performance of the underlying products, capabilities or technologies, the management of the operations and market conditions following these transactions. Accordingly, our financial results could be adversely affected from unanticipated performance issues, transaction-related charges, liabilities, amortization of expenses related to intangibles, charges for impairment of long-term assets, guarantees, partner performance and indemnifications. Divestitures may result in continued financial involvement in the divested business, such as through guarantees, indemnifications, or other financial arrangements, following the transaction. Although we have established procedures and processes to mitigate these risks, there is no assurance that these transactions will be successful.

Market volatility and adverse capital and credit market conditions may affect our suppliers' ability to access cost-effective sources of funding and expose us to risks associated with the financial viability of suppliers.

A tightening of credit could adversely affect our suppliers' ability to obtain financing. Delays in suppliers' ability to obtain financing, or the unavailability of financing, could cause us to be unable to meet our contract obligations and could adversely affect our financial position, results of operations, or cash flows. The inability of our suppliers to obtain financing 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.

Pension and medical expenses associated with our retirement benefit plans may fluctuate significantly depending upon changes in actuarial assumptions, future investment performance of plan assets, future trends in health care costs 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, the costs of which are dependent upon our various assumptions, including estimates of rates of return on benefit related assets, discount rates for future payment obligations, rates of future cost growth and trends for future costs. In addition, funding requirements for benefit obligations of our pension and post-retirement benefit plans are subject to legislative and other government regulatory actions. Variances from these estimates could have a material adverse effect on our financial position, results of operations, or cash flows.

Additionally, due to government regulations, pension plan cost recoveries under our 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 flow from operations. In December 2011, the cost accounting rules were 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. We anticipate that this rule will better align, but not eliminate, mismatches between ERISA funding requirements and CAS pension costs for U.S. Government CAS covered contracts.



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

We are subject to income taxes in the U.S. and many foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. Furthermore, changes in applicable domestic or foreign income tax laws and regulations, or their interpretation, could result in higher or lower income tax rates assessed or changes in the taxability of certain sales or the deductibility of certain expenses, thereby affecting our income tax expense and profitability. Deferred tax assets are required to be measured at the statutory tax rate currently in effect, therefore a change in the U.S. corporate tax rate would result in a remeasurement of our net deferred tax asset through the income tax provision. The final determination of any tax audits or related litigation could be materially different from our historical income tax provisions and accruals. Additionally, changes in our tax rate as a result of a change in the mix of earnings in countries with differing statutory tax rates, changes in our overall profitability, changes in tax legislation, changes in the valuation of deferred tax assets and liabilities, changes in differences between financial reporting income and taxable income, the results of audits and the examination of previously filed tax returns by taxing authorities and continuing assessments of our tax exposures could impact our tax liabilities and significantly affect our income tax expense, profitability and cash flow.

Our nuclear-related operations subject us to various environmental, regulatory, financial and other risks.

Our nuclear-related operations subject us to various risks, including potential liabilities relating to harmful effects on the environment and human health that may result from nuclear-related operations and the storage, handling and disposal of radioactive materials. We are also subject to reputational harm and potential liabilities arising out of a nuclear incident, whether or not it is within our control. The U.S. Government and prime contractors provide certain indemnity protection under certain of our contracts pursuant to, or in connection with, Public Law 85-804 and the Price-Anderson Nuclear Industries Indemnity Act for certain nuclear-related risks. If there was a nuclear incident and that indemnity protection was not available to cover our losses and liabilities, it could have a material adverse effect on our financial position, results of operations, or cash flows.

If all or any portion of the spin-off of our former Shipbuilding business or certain internal transactions undertaken in anticipation of the spin-off transaction are determined to be taxable for U.S. federal income tax purposes, we and our shareholders that are subject to U.S. federal income tax may incur significant U.S. federal income tax liabilities.

In connection with the spin-off of our former Shipbuilding business, 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 receive cash in lieu of fractional shares would recognize gain or loss with respect to such cash. The ruling and the opinion relied on certain facts, assumptions, representations and undertakings from us and HII regarding the past and future conduct of the companies' respective businesses and other matters.

We are not aware of any facts or circumstances that would cause any of the factual statements or representations in the IRS ruling or the opinion to be incomplete or untrue at the time of the spin-off transaction. Nevertheless, if the IRS determines that any of the factual statements or representations that the IRS ruling or the opinion was based on were incomplete or untrue, or if certain facts or circumstances upon which the IRS ruling or the opinion was based were materially different from those at the time of the spin-off, we and our shareholders may not be able to rely on the IRS ruling or the opinion of counsel and could be subject to significant tax liabilities.

Even if the spin-off transaction otherwise qualifies as tax-free for U.S. federal income tax purposes, the internal reorganization and distribution may be taxable to us (but not to our shareholders) if certain events occur, including, if before March 31, 2013 there are one or more acquisitions (including issuances) of the stock of either us or HII, representing 50% or more of the then-outstanding stock of either corporation and the acquisition or acquisitions are deemed to be part of a plan or series of related transactions that include the distribution; we cease to engage appropriately in the conduct of a substantial part of our existing business; or, we or HII repurchase shares in excess of specified levels before March 31, 2013. If such tax were incurred, the tax liability would be substantial. HII has agreed not to undertake transactions that would reasonably be expected to trigger such tax, and we intend to avoid any such transactions.

The spin-off of our former Shipbuilding business may expose us to potential claims and liabilities.

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 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. These risks could negatively affect our business and could have a material adverse effect on our financial position, results of operations, or cash flows.

Item 1B. Unresolved Staff Comments

None.

FORWARD-LOOKING STATEMENTS AND PROJECTIONS

This 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" and similar expressions generally identify these forward-looking statements. Forward-looking statements are based upon assumptions, expectations, plans and projections that we believe to be reasonable when made. These statements are not guarantees of future performance and inherently involve a wide range of risks and uncertainties that are difficult to predict. Specific factors that could cause actual results to differ materially from those expressed or implied in the 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 predictions contained in such 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, 2012, we owned or leased approximately 35 million square feet of floor space at approximately 513 separate locations, primarily in the U.S., for manufacturing, warehousing, research and testing, administration and various other uses. At December 31, 2012, we leased to third parties approximately 549,000 square feet of our owned and leased facilities, and had vacant floor space of approximately 357,000 square feet.

At December 31, 2012, 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; Bethpage, NY.

ELECTRONIC SYSTEMS

Azusa, Sunnyvale and Woodland Hills, CA; Norwalk, CT; 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 United Kingdom, France, Germany, and Italy.



INFORMATION SYSTEMS

Huntsville, AL; Carson, 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, Reston, and Richmond, VA.

TECHNICAL SERVICES

Sierra Vista, AZ; Warner Robins, GA; Lake Charles, LA; Clearfield, UT; and Herndon, VA.

CORPORATE

Falls Church and Lebanon, VA; and Irving, TX.

The following is a summary of our floor space at December 31, 2012:

		U.S. Government					
Square feet (in thousands)	Owned	Leased	Owned/Leased	Total			
Aerospace Systems	6,380	5,049	1,930	13,359			
Electronic Systems	8,222	2,895	—	11,117			
Information Systems	657	6,379	—	7,036			
Technical Services	115	1,889	—	2,004			
Corporate	657	880	—	1,537			
Total	16,031	17,092	1,930	35,053			

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 11 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 or treble damages or non-monetary relief. U.S. Government regulations also provide that certain allegations against a contractor may lead to suspension or debarment from future U.S. 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 the company's 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 11 to the consolidated financial statements, we do 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, 2012 or its annual results of operations 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, of this report.

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

(a) Market Information

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

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

	2012	2011
January to March ⁽¹⁾	\$57.31 to \$62.31	\$62.23 to \$72.50
April to June	56.59 to 65.78	59.87 to 70.50
July to September	61.86 to 70.20	49.20 to 70.61
October to December	62.80 to 71.25	50.13 to 59.83

(1) The stock prices for the quarter ended March 31, 2011 have not been adjusted for the impact of the Shipbuilding spin-off.

(b) Holders

The approximate number of common stockholders was 29,333 as of January 31, 2013.

(c) Dividends

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

	2012	2011
January to March	\$0.50	\$0.47
April to June	0.55	0.50
July to September	0.55	0.50
October to December	0.55	0.50
Total	\$2.15	\$1.97

Common Stock

We have 800,000,000 shares authorized at a \$1 par value per share, of which 239,209,812 shares and 253,889,622 shares were outstanding as of December 31, 2012 and 2011, respectively.

Preferred Stock

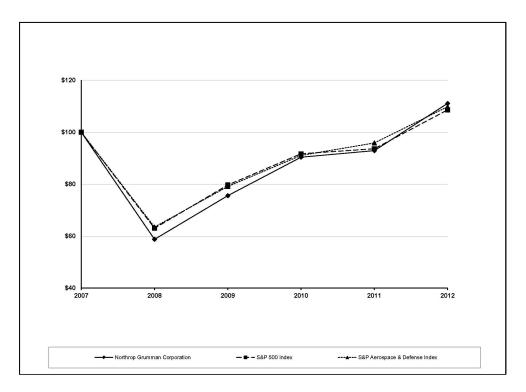
We have 10,000,000 shares authorized at a \$1 par value per share, of which no shares were issued and outstanding as of December 31, 2012, and 2011.



(d) 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



- Assumes \$100 invested at the close of business on December 31, 2007, 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 HII spin-off. 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.

(e) 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, 2012:

Period	Number of Shares Purchased ⁽¹⁾	Average Price Paid per Share ⁽²⁾	Numbers 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 1 through October 31, 2012	824,990	\$68.80	824,990	\$1,907
November 1 through November 30, 2012	2,697,026	66.11	2,697,026	1,728
December 1 through December 31, 2012	3,745,800	67.24	3,745,800	1,476
Ending balance	7,267,816	\$66.99	7,267,816	\$1,476

(1) In June 2010, our board of directors authorized a share repurchase program of up to \$2.0 billion of the company's common stock. Following this initial authorization, our board of directors increased the remaining repurchase authorization to \$4.0 billion in April 2011. After further repurchases reduced the remaining authorization to less than \$1 billion, the board of directors again increased the remaining authorization to \$2.0 billion in September 2012. As of December 31, 2012, repurchases under the program totaled \$3.9 billion and \$1.5 billion remained under this share repurchase authorization. The repurchase program will expire when we have used all authorized funds for repurchase.

(2) Includes commissions paid.

Share repurchases take place under pre-established programs, depending on market conditions, 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 program authorizations.

In connection with the spin-off of the former shipbuilding business (see Note 3 in Part II, Item 8), we obtained a Private Letter Ruling from the Internal Revenue Service that generally limits our share repurchases to approximately 88 million shares within two years of the spin-off. The limitation expires on March 31, 2013. Since the spin-off we have repurchased approximately 61 million shares of our common stock, and as of December 31, 2012, the company may repurchase approximately 27 million shares under the Private Letter Ruling limitation. Cash available from unusual transactions, such as the disposition of significant assets, should they arise, can be used to repurchase additional shares.

(f) Securities Authorized for Issuance Under Equity Compensation Plans.

For a description of securities authorized under our equity compensation plans, see Note 14 to our consolidated financial statements in Part II, Item 8.

Item 6. Selected Financial Data

The data presented in the following table is derived from the audited consolidated financial statements and other information, all adjusted to reflect the effects of discontinued operations. See also Other Matters – Business Dispositions in Part II, Item 7.

Selected Financial Data

	Year Ended December 31								
<i>\$ in millions, except per share amounts</i>		2012		2011		2010	2009		2008
Sales									
U.S. Government	\$	22,708	\$	23,905	\$	25,507	\$ 24,955	\$	23,274
Other customers		2,510		2,507		2,636	2,695		2,977
Total sales		25,218		26,412		28,143	27,650		26,251
Operating income		3,130		3,276		2,827	2,274		2,076
Earnings from continuing operations		1,978		2,086		1,904	1,434		1,018
Basic earnings per share, from continuing operations	\$	7.96	\$	7.54	\$	6.41	\$ 4.49	\$	3.04
Diluted earnings per share, from continuing operations		7.81		7.41		6.32	4.44		2.98
Cash dividends declared per common share		2.15		1.97		1.84	1.69		1.57
Year-End Financial Position									
Total assets	\$	26,543	\$	25,411	\$	31,410	\$ 30,297	\$	30,077
Notes payable to banks and long-term debt		3,935		3,948		4,724	4,011		3,661
Total long-term obligations and preferred stock ⁽¹⁾		10,973		8,940		7,947	8,959		8,926
Financial Metrics									
Cash provided by continuing operations	\$	2,640	\$	2,347	\$	2,056	\$ 1,995	\$	2,705
Free cash flow from continuing operations ⁽²⁾		2,309		1,855		1,471	1,454		2,132
Other Information									
Company-sponsored research and development expenses	\$	520	\$	543	\$	580	\$ 588	\$	543
Total backlog		40,809		39,515		46,842	48,741		54,062
Square footage at year-end (in thousands)		35,053		37,397		38,218	37,990		39,962
Number of employees at year-end		68,100		72,500		79,600	81,800		81,418

(1) In 2008, all of the outstanding shares of preferred stock were converted or redeemed. Total long-term obligations includes the long-term portions of debt, pension and post-retirement plan liabilities, environmental liabilities, deferred compensation and other long-term obligations.

(2) 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 from Continuing Operations 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

Political and Economic Environment

The U.S. Government continues to face substantial fiscal and economic challenges that affect funding for its non-discretionary and discretionary budgets. Part I of the Budget Control Act of 2011 (Budget Control Act) provided for a reduction in defense budgets by at least \$487 billion over a ten year period. Part II provided the potential for substantial additional reductions, through a process known as "sequestration." The President's proposed fiscal year (FY) 2013 budget represented a slight decline for defense from FY 2012. While Congress has not passed a FY 2013 budget, it did pass a six-month continuing resolution that funds the U.S. Government through March 27, 2013. This continuing resolution restricts new starts and provides for discretionary spending levels that represent a slight increase over the FY 2012 budget. It is unclear whether annual appropriations bills will be passed during FY 2013. The U.S. Government may operate under a continuing resolution for all of FY 2013, restricting new contract or program starts for that year.

The American Taxpayer Relief Act of 2012 was enacted in January 2013. It addressed a number of tax code provisions and certain spending issues but left in place the sequester (although delaying its implementation to March 1, 2013) and did not address other fiscal matters such as the debt ceiling. The nation's debt ceiling is currently expected to be reached during the first half of 2013. Congress and the Administration continue to debate these issues and the terms of a possible national fiscal approach. The outcome of that debate could have a significant impact on future defense spending plans. While the President's proposed FY 2014 budget is scheduled for release in February 2013, its delivery may be delayed given these unresolved broad fiscal matters.

The Congressional budget process to finalize FY 2013 defense spending also has been marked by continued uncertainty and significant debate, increasing the possibility of sequestration occurring. As noted above, the Budget Control Act calls for additional substantial defense spending reductions through sequestration, if Congress is unable to agree on a budget that conforms with the Budget Control Act requirements. Should sequestration, as currently mandated, be implemented in March 2013, absent any other changes, we expect it would 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 the companies in the defense industrial base.

There continues to be much uncertainty also regarding how sequestration would be implemented, if it were to go into effect. There are many variables in how the law could be applied that make it difficult to determine the specific impacts. However, we expect that sequestration, as currently provided for under the Budget Control Act, would result in lower revenues, profits and cash flows for our company.

Members of Congress are discussing various options to address sequestration's automatic spending cuts. While we cannot predict the outcome of these efforts, it is likely that budget decisions made in this environment will have long-term consequences for our company and the entire defense industry.

In addition to fiscal and budgetary constraints, we expect defense spending to be affected by the drawdown of U.S. force levels tied to current major overseas deployments and other shifts in defense missions and priorities. As overall defense spending declines, the Department of Defense (DoD) is continuing to reevaluate the role and structure of the U.S. military. In 2012, the DoD announced a new defense strategy intended to guide its priorities and budgeting decisions. The guidance calls for the U.S. military to project power globally and operate effectively in all domains, including cybersecurity, and it places particular emphasis on Asia Pacific as an area of strategic focus.

We believe that spending on recapitalization, modernization and maintenance of defense, intelligence, and homeland security assets will continue to be a national priority. Future defense spending is expected to include the development and procurement of new manned and unmanned military platforms and systems along with advanced electronics and software to enhance the capabilities of existing individual systems and provide real-time integration of individual surveillance, information management, strike, and battle management platforms. We expect significant new competitive opportunities to include long range strike, missile defense, command and control, network communications, enhanced situational awareness, satellite systems, restricted programs, cybersecurity, technical services and information technology contracts, as well as numerous international and homeland security programs.

See Risk Factors located in Part I, Item 1A for a more complete description of risks we face.

Operating Performance Assessment and Reporting

We manage and assess the performance of our business based on our performance on contracts and programs (two or more closely-related contracts), with consideration given to the Critical Accounting Policies, Estimates and Judgments described later in this section. Revenue on our portfolio of long-term contracts is generally recognized using the percentage of completion method, primarily the cost-to-cost method, but in some cases the units-of-delivery method of percentage of completion accounting. As a result, sales tend to fluctuate in concert with costs across our large portfolio of contracts. Due to Federal Acquisition Regulations (FAR) rules that govern our business, most types of costs are allowable, and 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 costs, which is the key driver of both sales and operating income.

Our contract management process involves the use of contract estimates-at-completion (EACs) that are generally prepared and evaluated on a bottoms-up basis at least annually and reviewed on a quarterly basis over the contract's period of performance. These EACs include an estimated contract operating margin based initially on the contract award amount, adjusted to reflect estimated risks related to contract performance. These risks typically include technical risk, schedule risk and performance risk based on our evaluation of the contract effort. Similarly, the EACs include identified opportunities for operating margin rate improvement. Over the contract's period of performance, our program management organizations perform evaluations of contract performance and adjust the contract revenue and cost estimates to reflect the latest reliable information available.

Our business and program management organizations are comprised of skilled professional managers whose objective is to satisfy the customer's expectations, deliver high quality products and services, and manage contract risks and opportunities to achieve an appropriate operating margin rate on the contract. Our comprehensive business and contract management process is a coordinated process involving personnel with expertise from various disciplines including production control, contracts, cost management, mission assurance and quality, finance and supply chain, among others . As part of this overall contract management function, these personnel monitor compliance with our critical accounting policies related to contract accounting and compliance with U.S. Government regulations. Contract operating income and period-to-period contract operating margin rates are adjusted over the contract's period of performance to reflect the latest estimated revenue and cost for the contract, including changes in the risks and opportunities affecting the contract. Such adjustments may have a favorable or unfavorable effect on operating income depending upon the specific conditions affecting each contract.

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 of results of operations first focuses around 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 cost or sales from production/service activity levels or delivery rates. Performance refers to changes in contract margin rates for the period, primarily related to the changes in estimates referred to above.

CONSOLIDATED OPERATING RESULTS

Selected financial highlights, excluding the results of discontinued operations, are presented in the table below:

	Year	Ended December 31	
<i>§ in millions, except per share amounts</i>	2012	2011	2010
Sales	\$25,218	\$26,412	\$28,143
Operating costs and expenses	22,088	23,136	25,316
Operating income	3,130	3,276	2,827
Operating margin rate	12.4%	12.4%	10.0%
Interest expense	(\$ 212)	(\$ 221)	(\$ 269)
Federal and foreign income tax expense	\$ 987	\$ 997	\$ 462
Effective income tax rate	33.3%	32.3%	19.5%
Diluted earnings per share	\$ 7.81	\$ 7.52	\$ 6.82
Cash provided by continuing operations	\$ 2,640	\$ 2,347	\$ 2,056



Consolidated operating results for the year ended December 31, 2012, reflect our customer's overall lower spending levels, lower sales due to our portfolio shaping actions and our focus on working capital. Our margin rates and cash provided by operating activities demonstrate strong operating performance, and our continued focus on performance and affordability, as further discussed below.

Segment operating income, as reconciled below, is a non-GAAP measure and is used by management as an internal measure of the financial performance of our individual operating segments.

	Year Ended December 31			
\$ in millions	2012	2011	2010	
Segment operating income	\$3,176	\$3,055	\$3,010	
Segment operating margin rate	12.6%	11.6%	10.7%	

The table below reconciles segment operating income to total operating income:

	Year	Ended December 31					
\$ in millions	2012	2011	2010				
Segment operating income	\$3,176	\$3,055	\$3,010				
FAS pension expense in accordance with GAAP	(374)	(238)	(461)				
Pension expense in accordance with CAS	506	638	471				
Net FAS/CAS pension adjustment	132	400	10				
Unallocated corporate expenses	(168)	(166)	(182)				
Other	(10)	(13)	(11)				
Total operating income	\$3,130	\$3,276	\$2,827				

For financial statement purposes, we account for our employee pension plans in accordance with GAAP under Financial Accounting Standards (FAS). We charge the costs of these plans to our contracts in accordance with the FAR and the related Cost Accounting Standards (CAS) that govern such plans. The net FAS/CAS pension adjustment is pension expense determined in accordance with GAAP less pension expense charged to contracts and included in segment operating income. Unallocated corporate expenses generally include the portion of corporate expenses, other than FAS pension costs, not considered allowable or allocable under applicable CAS and FAR rules, and therefore not allocated to the segments, such as a portion of management and administration, legal, environmental, certain compensation and retiree benefits, and other expenses.

Sales

2012 - Sales for 2012 decreased \$1.2 billion, or 5 percent, as compared to 2011, reflecting lower sales in three of our four operating segments.

2011 - Sales for 2011 decreased \$1.7 billion, or 6 percent, as compared to 2010, reflecting lower sales at all four operating segments.

The table below shows the variances in segment sales from the respective prior years:

	Variance from Prior Year						
\$ in millions	2012		2011				
Aerospace Systems	\$ 13	0%	(\$472)	(5%)			
Electronic Systems	(422)	(6%)	(241)	(3%)			
Information Systems	(565)	(7%)	(474)	(6%)			
Technical Services	(174)	(5%)	(512)	(14%)			
Intersegment sales elimination	(46)	(2%)	(32)	(2%)			

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

Operating Costs and Expenses

Operating costs and expenses are primarily comprised of labor, material, subcontractor, and overhead costs, and are generally allocated to contracts as they are 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. These general and administrative costs are generally allocated on a systematic basis to contracts in progress.

Operating costs and expenses consist of the following:

	Year	Year Ended December 31		
\$ in millions	2012	2011	2010	
Product and service costs	\$19,638	\$20,786	\$22,849	
General and administrative	2,450	2,350	2,467	
Operating costs and expenses	\$22,088	\$23,136	\$25,316	

2012 – Product and service costs for 2012 decreased \$1.1 billion, or 6 percent, as compared to 2011. The primary driver of the reduction in product and service costs was reduced volume at Electronic Systems, Information Systems and Technical Services. General and administrative expenses as a percentage of total sales increased to 9.7 percent in 2012, from 8.9 percent in 2011; the increase includes the impact of lower sales, higher indirect costs related to compensation accruals and cost classification changes to standardize cost accounting practices at one of our segments, as well as higher bid and proposal expenses.

2011 – Product and service costs for 2011 decreased \$2.1 billion, or 9 percent, as compared to 2010. The primary driver of the reduction in product and service costs is reduced volume at all four of our segments, with Aerospace Systems, Information Systems and Technical Services driving the majority of the decrease. General and administrative expenses as a percentage of total sales was comparable at 8.9 percent.

For the product and service costs detail, see the Product and Service Analysis section that follows.

Operating Income

We define operating income as sales less operating costs and expenses, which includes general and administrative expenses. Changes in estimated sales, operating costs and expenses, and the resulting operating income related to our contracts accounted for using the percentage-of-completion method are recorded using the cumulative catch-up method of accounting. The aggregate effects of these favorable and unfavorable changes in our estimated costs at completion, across our portfolio of contracts, can have a significant effect upon our reported sales and operating income in each of our reporting periods. Cumulative catch-up operating income adjustments are presented in the table below:

	Year	Year Ended December 31			
<i>§ in millions</i>	2012	2011	2010		
Favorable adjustments	\$1,270	\$1,123	\$945		
Unfavorable adjustments	(285)	(385)	(270)		
Net operating income adjustments	\$ 985	\$ 738	\$675		

Cost reduction initiatives to increase our competitiveness contributed to the net favorable operating income adjustments. Our cost management activities have led to overall improved contract performance, reflected in both increased favorable adjustments and lower unfavorable adjustments.

Segment Operating Income

Segment operating income is defined as operating income less certain corporate-level expenses that are not considered allowable or allocable under applicable CAS and FAR and the net FAS/CAS pension difference.



The table below shows the variances in segment operating income from the respective prior years:

	Variance from Prior Year					
\$ in millions	2012		2011			
Aerospace Systems	\$ 1	0%	\$ 4	0%		
Electronic Systems	117	11%	47	5%		
Information Systems	(5)	(1%)	10	1%		
Technical Services	8	3%	11	4%		
Intersegment earnings elimination	—	0%	(27)	(12%)		

2012 - Segment operating income in 2012 increased \$121 million, or 4 percent, as compared to 2011, driven by a number of factors including improved performance, particularly at Electronic Systems. Improved performance reflects mitigation of contract risks and cost reduction initiatives, as well as portfolio shaping efforts. The increase in segment operating margin rate reflects this improved segment performance on lower revenue.

2011 - Segment operating income in 2011 increased \$45 million, or 1 percent, as compared to 2010, driven by improved program performance, which more than offset the impact of lower sales.

Net Pension Adjustment

The net FAS/CAS pension adjustment in 2012 decreased \$268 million, as compared to 2011, primarily due to increased GAAP pension expense resulting from amortization of prior year actuarial losses and decreased CAS pension expense allocated to the operating segments due to the design change in the company's defined benefit pension plans adopted in December 2011. The net FAS/CAS pension adjustment in 2011 increased \$390 million, as compared to 2010, primarily due to decreased GAAP pension expense, primarily resulting from higher than estimated returns on a larger amount of pension plan assets as of the beginning of the year.

Unallocated Corporate Expenses

Unallocated corporate expenses for 2012 were comparable with the prior year. Unallocated corporate expenses for 2011 decreased \$16 million, or 9 percent, as compared with 2010, primarily due to a decrease in stock-based compensation.

Interest Expense

Interest expense declined in both 2012 and 2011 by \$9 million and \$48 million, respectively, as compared to the respective prior years. The decrease from 2010 to 2011 is primarily due to a lower weighted average interest rate resulting from our debt refinancing in November 2010.

Federal and Foreign Income Taxes

2012 – Our effective tax rate on earnings from continuing operations for 2012 was 33.3 percent, as compared with 32.3 percent in 2011. The higher effective tax rate reflects the change in net tax benefits related to the absence of research tax credits, which expired at the end of 2011. Although the American Taxpayer Relief Act of 2012 extended the research tax credit through 2013, it was not enacted until January 2013. Therefore, the 2012 research credit will be recorded in the first quarter of 2013.

2011 – Our effective tax rate on earnings from continuing operations for 2011 was 32.3 percent, as compared with 19.5 percent in 2010. In 2010, we recognized net tax benefits of \$298 million to reflect the final approval from the IRS and the U.S. Congressional Joint Committee on Taxation of the IRS' examination of our tax returns for the years 2004 through 2006.

Diluted Earnings Per Share

2012 – Our diluted earnings per share increased by \$0.29, or 4 percent. The higher diluted earnings per share reflects the full impact of 2011 share repurchases, which were largely purchased in the second half of 2011, the effect of our 2012 share repurchases and the higher segment operating income, partially offset by lower earnings reflecting the lower net FAS/CAS pension adjustment.

2011 – Our diluted earnings per share increased by \$0.70, or 10 percent. The higher diluted earnings per share reflects higher earnings and the effects of our share repurchases.

Cash Provided by Continuing Operations

2012 – Cash provided by continuing operations for 2012 was \$2.6 billion, as compared with \$2.3 billion in 2011. Cash provided by continuing operations reflects lower pension contributions, partially offset by higher income taxes



paid. In 2012, we contributed \$367 million to our pension plans, of which \$300 million was voluntarily pre-funded, as compared with \$1.1 billion in 2011, of which \$1.0 billion was voluntarily pre-funded.

2011 – Cash provided by continuing operations in 2011 was \$2.3 billion, as compared with \$2.1 billion in 2010. The increase in 2011 reflects lower tax payments, timing of trade working capital and higher pension contributions. In 2011, we contributed \$1.1 billion to our pension plans, of which \$1.0 billion was voluntarily pre-funded, as compared with \$789 million in 2010, of which \$728 million was voluntarily pre-funded.

SEGMENT OPERATING RESULTS

Basis of Presentation

We are aligned in four reportable segments: Aerospace Systems, Electronic Systems, Information Systems and Technical Services. This section discusses sales, segment operating income and operating margin rates by segment. The reconciliation of segment sales to total sales is provided in Note 4 to the consolidated financial statements in Part II, Item 8, with the difference being intersegment sales eliminations. The reconciliation of segment operating income to total operating income, as well as a discussion of the reconciling items, is included in the Consolidated Operating Results section above. For purposes of the discussion in this Segment Operating Results section, references to operating income and operating income margin rate reflect segment operating income and segment operating margin rate.

On January 1, 2012, we transferred our missile business (primarily the Intercontinental Ballistic Missile (ICBM) program) from the Aerospace Systems segment to our Technical Services segment. The segment sales and segment operating income for the years ended December 31, 2011 and 2010, have been recast to reflect the missile business transfer. Sales of \$494 million and \$474 million, and segment operating income of \$44 million and \$43 million, were transferred from Aerospace Systems to Technical Services for the years ended December 31, 2011 and 2010, respectively.

For a more complete description of each segment's products and services, see the business descriptions in Part I, Item 1.

AEROSPACE SYSTEMS

	Ye	Year Ended December 31				
\$ in millions	2012	2011	2010			
Sales	\$9,977	\$9,964	\$10,436			
Operating income	1,218	1,217	1,213			
Operating margin rate	12.2%	12.2%	11.6%			

2012 - Aerospace Systems sales for 2012 were comparable to the prior year. Sales of unmanned systems increased approximately \$280 million, primarily related to ramping up on the NATO Alliance Ground Surveillance (AGS) and Fire Scout programs. Additionally, there was higher volume of approximately \$200 million on the F-35 program due to deliveries on LRIP 5, the first F-35 contract accounted for under the units-of-delivery method. These increases were offset by the termination of a weather satellite program, which reduced sales by approximately \$175 million, as well as lower sales on the Joint Surveillance Target Attack Radar System (JSTARS), F/A-18 and certain restricted space programs.

Operating income and margin rate for 2012 were comparable to the prior year. The operating income and margin rate reflect approximately \$90 million lower operating income from the F/A-18 program's lower volume and transition from the multi-year 2 contract to the lower margin multi-year 3 contract, principally offset by performance improvements in space systems and higher margin rates and volume on sales of unmanned systems.

2011 - Aerospace Systems sales for 2011 decreased \$472 million, or 5 percent, as compared with 2010. The decrease was primarily due to approximately \$430 million lower sales in space systems due to reduced funding for weather satellite programs and the James Webb Space Telescope (JWST), as well as lower volume for several other space programs. Military aircraft systems declined approximately \$130 million primarily due to lower volume on the F-35 program, which transitioned to a units-of-delivery revenue recognition method beginning with low rate initial production lot 5, the completion of the aerial targets program and lower volume on EA-18G Growler, offset by higher volume on Long Endurance Multi-Intelligence Vehicle (LEMV) and JSTARS. These decreases were partially offset by higher sales at advanced concepts and technology, primarily due to increased volume on restricted programs.

Operating income for 2011 was comparable with the prior year, and operating margin rate increased to 12.2 percent from 11.6 percent. The increase is primarily due to improved performance across several programs at Aerospace Systems and lower amortization expense on purchased intangibles, partially offset by an unfavorable adjustment for performance incentives on a space program and overall lower sales volume discussed above.

ELECTRONIC SYSTEMS

	Year	Year Ended December 31		
\$ in millions	2012	2011	2010	
Sales	\$6,950	\$7,372	\$7,613	
Operating income	1,187	1,070	1,023	
Operating margin rate	17.1%	14.5%	13.4%	

2012 - Electronic Systems sales for 2012 decreased \$422 million, or 6 percent, as compared with 2011. The decrease was largely due to lower volume of approximately \$160 million on infrared countermeasures sales and approximately \$250 million lower postal automation sales, including approximately \$150 million from our decision to de-emphasize our domestic postal automation business. These declines, as well as declines due to troop draw down and reduced overseas contingency operations funding, were partially offset by approximately \$190 million higher volume on space programs.

Operating income for 2012 increased \$117 million, or 11 percent, and operating margin rate increased to 17.1 percent from 14.5 percent. The higher operating income and operating margin rate reflect approximately \$160 million of additional performance improvements over 2011, primarily on several combat avionics programs. These performance improvements include the effect of unfavorable adjustments of approximately \$50 million on a domestic postal automation program in the prior year that did not recur in 2012.

2011 - Electronic Systems sales for 2011 decreased \$241 million, or 3 percent, as compared with 2010. The decrease was primarily due to fewer deliveries on the Large Aircraft Infrared Countermeasures and Vehicular Intercommunications Systems (VIS) programs, offset by increased volume on restricted programs.

Operating income for 2011 increased \$47 million, or 5 percent, and operating margin rate increased to 14.5 percent from 13.4 percent. The higher operating income is primarily due to performance improvements on several contracts nearing completion in Land & Self Protection Systems and Intelligence, Surveillance & Reconnaissance programs. The improved program performance was partially offset by reserves established in 2011 for reductions in workforce and a reserve on a program related to outstanding contractual issues as the contract nears completion and the overall lower sales volume described above.

INFORMATION SYSTEMS

	Year	Year Ended December 31				
\$ in millions	2012	2011	2010			
Sales	\$7,356	\$7,921	\$8,395			
Operating income	761	766	756			
Operating margin rate	10.3%	9.7%	9.0%			

2012 - Information Systems sales for 2012 decreased \$565 million, or 7 percent, as compared with 2011, with no single program driving a significant portion. The decline in sales reflects the termination or wind-down on a number of programs, including the Joint Tactical Radio Systems Airborne, Maritime and Fixed (JTRS AMF), Installation Kits (I-KITS), Enterprise Network Management (ENM) and F-22 programs, partially offset by higher volume of approximately \$110 million on the Encore II Information Technology support program, as well as higher volume on the Air and Space Operations Center, Enterprise System Development, and Ground Combat Vehicle programs. Further reducing sales was lower volume on restricted programs, as well as the sale of the County of San Diego IT outsourcing contract and the sale of Park Air Norway, which together reduced sales by approximately \$100 million, as compared to 2011.

Operating income for 2012 decreased \$5 million, or 1 percent, and operating margin rate increased to 10.3 percent from 9.7 percent. The higher operating margin rate is primarily driven by performance improvements across a number of contracts, which largely offset the impact of lower volume on operating income.

2011 - Information Systems sales for 2011 decreased \$474 million, or 6 percent, as compared with 2010. The largest driver was lower sales for defense programs of \$327 million, principally attributed to reduced volume on Force

Protection Security System, Saudi Arabian American Oil Company, Netcents DKO, F-22 and several other programs, partially offset by higher volume on Encore II and Trailer Mounted Support System programs. The lower civil sales volume is primarily due to the sale of the County of San Diego contract, which reduced sales by \$70 million as compared to the same period in 2010, lower volume on the ENM program and completion of the Treasury Communications System program in 2010.

Operating income for 2011 increased \$10 million, or 1 percent, and operating margin rate increased to 9.7 percent from 9.0 percent. The increase is primarily driven by improved performance on several civil programs, including the Virginia Information Technologies Agency Outsource contract and the effect of the sale of the County of San Diego contract, partially offset by the lower sales volume in defense programs described above.

TECHNICAL SERVICES

	Yea	Year Ended December 31				
\$ in millions	2012	2011	2010			
Sales	\$3,019	\$3,193	\$3,705			
Operating income	268	260	249			
Operating margin rate	8.9 %	8.1%	6.7%			

2012 - Technical Services sales for 2012 decreased \$174 million, or 5 percent, as compared with 2011. The decrease was primarily due to reduced volume from portfolio shaping of approximately \$70 million as we focus our operations into core areas, lower KC-10 logistics activity of approximately \$60 million and lower ICBM logistics and modernization activity of approximately \$50 million.

Operating income for 2012 increased \$8 million, or 3 percent, and operating margin rate increased to 8.9 percent from 8.1 percent. The higher operating income and operating margin rate were primarily due to improved performance on the KC-10 program, partially offset by lower sales volume as described above.

2011 - Technical Services sales for 2011 decreased \$512 million, or 14 percent, as compared with 2010. The decrease is primarily due to \$606 million lower sales in defense and government systems, primarily due to the reduced participation in the NSTec joint venture. Effective January 1, 2011, the company reduced its participation in this joint venture and deconsolidated it, resulting in no sales recorded for the joint venture for 2011, compared with sales of \$579 million in 2010. The decrease was partially offset by increased activity on the KC-10 program, which began in February 2010.

Operating income for 2011 increased \$11 million, or 4 percent, and operating margin rate increased to 8.1 percent from 6.7 percent. The increase in operating margin rate is primarily due to effects of the change in participation in the NSTec joint venture and performance improvements on several logistics and modernization and defense programs, partially offset by unfavorable program performance on KC-10.

PRODUCT AND SERVICE ANALYSIS

	Year Ended December 31						
\$ in millions	2012	2011	2010				
Product sales	\$13,838	\$15,073	\$16,091				
Product costs ⁽¹⁾	10,415	11,491	12,558				
% of product sales	75.3%	76.2%	78.0%				
Service sales	11,380	11,339	12,052				
Service costs ⁽¹⁾	9,223	9,295	10,291				
% of service sales	81.0%	82.0%	85.4%				

(1) Product and service costs do not include an allocation of general and administrative expenses.

2012 - Product costs as a percentage of product sales decreased 90 basis points for the year ended December 31, 2012, compared to 2011. This improvement reflects higher margins on combat avionics at Electronic Systems.

Service costs as a percentage of service sales decreased 100 basis points for the year ended December 31, 2012, compared to 2011. This improvement reflects higher service margins in all four business segments. The



improvement is principally driven by higher margins on certain military aircraft programs at Aerospace Systems and an increase in favorable performance adjustments across a number of programs at Electronic Systems.

2011 - Product costs as a percentage of product sales decreased 180 basis points for the year ended December 31, 2011, compared to 2010. The decrease reflects performance improvements in various programs at Aerospace Systems and Electronic Systems, and lower amortization expense on purchased intangibles at Aerospace Systems.

Service costs as a percentage of service sales decreased 340 basis points for the year ended December 31, 2011, compared to 2010. The decrease reflects performance improvements in various programs at Information Systems and Technical Services, the effect of the sale of the County of San Diego contract at Information Systems, and the change in participation in the NSTec joint venture at Technical Services.

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

						Year Ended	Decem	nber 31				
\$ in millions	2012				2011			2010				
Segment Information:	5	Sales		Operating Costs and Expenses		Sales		Operating Costs and Expenses		Sales		ting Costs Expenses
Aerospace Systems												
Product	\$	8,729	\$	7,704	\$	8,701	\$	7,622	\$	9,324	\$	8,262
Services		1,248		1,055		1,263		1,125		1,112		961
Electronic Systems												
Product		5,346		4,438		6,041		5,161		6,410		5,479
Services		1,604		1,325		1,331		1,141		1,203		1,111
Information Systems												
Product		708		606		486		430		535		476
Services		6,648		5,989		7,435		6,725		7,860		7,163
Technical Services												
Product		213		196		501		456		475		433
Services		2,806		2,555		2,692		2,477		3,230		3,023
Segment Totals												
Total Product	\$	14,996	\$	12,944	\$	15,729	\$	13,669	\$	16,744	\$	14,650
Total Services		12,306		10,924		12,721		11,468		13,405		12,258
Intersegment eliminations		(2,084)		(1,826)		(2,038)		(1,780)		(2,006)		(1,775)
Total Segment ⁽¹⁾	\$	25,218	\$	22,042	\$	26,412	\$	23,357	\$	28,143	\$	25,133

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

Product Sales and Product Costs

2012 - Product sales in 2012 decreased by \$733 million, compared to 2011, primarily due to lower product sales at Electronic Systems and Technical Services, partially offset by higher product sales at Information Systems. The decrease at Electronic Systems primarily relates to lower volume of approximately \$90 million in combat avionics and approximately \$250 million in domestic and international postal automation programs. The decline at Technical Services was due to the change in classification of the ICBM program from product to service at the beginning of 2012, as the program transitioned from modernization to predominantly sustainment services. The increase at Information Systems was primarily driven by higher intercompany volume.

Product costs in 2012 decreased by \$725 million, compared to 2011, primarily due to lower sales volume and increased performance improvement adjustments at Electronic Systems and the change in classification of the ICBM program at Technical Services, offset by higher product volume at Information Systems, as described above.

2011 - Product sales in 2011 decreased \$1.0 billion, compared to 2010, primarily due to lower sales volume on space and military aircraft programs at Aerospace Systems and lower sales volume in Land and Self Protection Systems at Electronic Systems.



Product costs in 2011 decreased by \$981 million, compared to 2010, due to the decline in sales volume. Specifically, Aerospace Systems sales decreased by approximately \$600 million due to declines in space and military aircraft programs, partially offset by sales increases in advanced concepts and technology.

Service Sales and Service Costs

2012 - Service sales in 2012 decreased \$415 million, compared to 2011, primarily due to lower service sales at Information Systems across a number of programs, partially offset by the transitioning of the ICBM program from product to service at Technical Services and higher service volume at Electronic Systems.

Service costs in 2012 decreased \$544 million, due to lower sales at Information Systems, partially offset by the transitioning of the ICBM program from product to service at Technical Services, as described above, and higher service volume at Electronic Systems. The service activities at Aerospace Systems and Electronic Systems were at higher margin than the prior year, resulting in service costs decreasing more than service sales.

2011 - Service sales in 2011 decreased \$684 million, compared to 2010, primarily due to the reduced participation by Technical Services in the NSTec joint venture, resulting in no sales recorded for the joint venture in 2011, compared to \$579 million in 2010, and lower sales volume on defense and civil programs at Information Systems.

Service costs in 2011 decreased \$790 million, due to the overall decline in sales for the period and margin rate improvements at Information Systems, Technical Services and Electronic Systems, offset somewhat by an unfavorable margin rate change at Aerospace Systems. Contributing to the overall decline in revenues was the company's reduced participation in the NSTec joint venture, which resulted in the deconsolidation of this business in 2011. NSTec contributed revenues of \$579 million and segment cost of sales of \$559 million in 2010 when it was included in Technical Service's sales, thus driving a 80 basis point improvement in margin rate for this segment. More modest margin rate improvements at Electronic Systems and Information Systems effectively offset the decline in margin rate at the Aerospace Systems business.

BACKLOG

Total backlog includes both funded backlog (firm orders for which funding is contractually obligated by the customer) 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.

On January 1, 2012, the company transferred its missile business, previously reported in Aerospace Systems to Technical Services. As a result of this realignment, \$599 million of backlog was transferred from Aerospace Systems to Technical Services. Total backlog as of December 31, 2011, reflects this transfer.

Backlog consisted of the following at December 31, 2012 and 2011:

		2012		2011
			Total	Total
\$ in millions	Funded	Unfunded	Backlog	Backlog
Aerospace Systems	\$11,103	\$ 8,491	\$19,594	\$18,638
Electronic Systems	7,833	1,638	9,471	9,123
Information Systems	4,045	4,496	8,541	8,563
Technical Services	2,719	484	3,203	3,191
Total backlog	\$25,700	\$15,109	\$40,809	\$39,515

Approximately \$21.4 billion of the \$40.8 billion total backlog at December 31, 2012, is expected to be converted into sales in 2013. Total U.S. Government orders, including those made on behalf of foreign governments, comprised 82 percent of the total backlog at the end of 2012. International orders accounted for 12 percent of the total backlog at the end of 2012. Domestic commercial backlog represented 6 percent of total backlog at the end of 2012.

New Awards

2012 – The estimated value of contract awards booked during 2012 is \$26.5 billion. Significant new awards during 2012 include \$1.7 billion for the NATO AGS Unmanned System program, \$1.4 billion for the JWST program, \$1.3 billion for the F-35 program, \$1.2 billion for the E-2D Advanced Hawkeye program, \$1.0 billion for international air defense programs and \$689 million for the Global Hawk program.

2011 -The estimated value of contract awards added to backlog during the year ended December 31, 2011, is \$25.3 billion. Significant new awards in 2011 included \$2.0 billion for the F/A-18 program, \$1.1 billion for the E-2D Advanced Hawkeye program, \$1.0 billion for the Global Hawk program, \$1.1 billion for the B-2 program, \$886 million for the F-35 program and \$404 million for the KC-10 program.

LIQUIDITY AND CAPITAL RESOURCES

We endeavor to ensure the most efficient conversion of operating earnings 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, but not limited to, net cash provided by operations, free cash flow, net debt-to-equity and debt-to-capital. We believe these measures are useful to investors in assessing our financial performance and condition.

Cash balances and cash generated from continuing operations, supplemented by borrowings under credit facilities and/or in the capital markets, if needed, is expected to be sufficient to fund our operations for at least the next 12 months. As of December 31, 2012, the amount of cash, cash equivalents, and marketable securities held outside of the U.S. by foreign subsidiaries was \$580 million. We do not anticipate repatriating these balances to fund domestic operations. Capital expenditure commitments at December 31, 2012, of approximately \$258 million are expected to be paid with cash on hand.

The table below summarizes key components of cash flow provided by operating activities from continuing operations:

	Year Ended December 31		
\$ in millions	2012	2011	2010
Net earnings	\$1,978	\$2,118	\$2,053
Net earnings from discontinued operations	—	(32)	(134)
Charge on debt redemption	—	—	229
Non-cash items ⁽¹⁾	726	1,108	748
Retiree benefit funding in excess of expense	(71)	(904)	(354)
Trade working capital change	7	57	(486)
Cash provided by continuing operations	\$2,640	\$2,347	\$2,056

(1) Includes depreciation and amortization, stock based compensation expense and deferred income taxes.

Free Cash Flow from Continuing Operations

Free cash flow from continuing operations is defined as cash provided by operating activities from continuing operations less capital expenditures. We believe free cash flow from continuing operations is a useful measure for investors to consider as it represents the 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, the payment of dividends and stock repurchases.

Free cash flow from continuing operations 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 continuing operations to free cash flow from continuing operations:

	Yea	l	
\$ in millions	2012	2011	2010
Cash provided by continuing operations	\$2,640	\$2,347	\$2,056
Less: Capital expenditures	(331)	(492)	(585)
Free cash flow provided by continuing operations	\$2,309	\$1,855	\$1,471

Cash Flows

The following is a discussion of our major operating, investing and financing activities from continuing operations for each of the three years in the period ended December 31, 2012, as classified on the consolidated statements of cash flows in Part II, Item 8.

Operating Activities

2012 – Cash provided by continuing operations in 2012 increased \$293 million, as compared to 2011, primarily due to lower pension contributions, partially offset by higher income taxes paid. In 2012, we contributed \$367 million to our pension plans, of which \$300 million was voluntarily pre-funded, as compared with \$1.1 billion in 2011, of which \$1.0 billion was voluntarily pre-funded.

2011 – Cash provided by continuing operations in 2011 increased \$291 million, as compared to 2010, primarily due to lower tax payments and changes in trade working capital, partially offset by higher pension plan contributions. In 2011, pension plan contributions totaled \$1.1 billion, of which \$1 billion was voluntarily pre-funded. In 2010, pension plan contributions totaled \$789 million, of which \$728 million was voluntarily pre-funded.

Investing Activities

2012 – Cash used in investing activities from continuing operations in 2012 decreased \$827 million, as compared to the cash provided by investing activities in 2011, reflecting a \$1.4 billion contribution received from the spin-off of Shipbuilding business in 2011, partially offset by \$250 million in proceeds from the maturity of short-term investments in 2012 that were purchased in 2011.

2011 – Cash provided by investing activities from continuing operations increased \$1.3 billion as compared to 2010, reflecting a \$1.4 billion contribution received from the spin-off of Shipbuilding business, partially offset by \$250 million net purchases of a short-term investment in 2011.

Financing Activities

2012 – Net cash used in financing activities from continuing operations in 2012 decreased \$1.8 billion, as compared to 2011, reflecting approximately \$980 million lower repurchases of common stock and \$768 of debt repayments in 2011 that did not recur in 2012.

2011 – Net cash used in financing activities from continuing operations in 2011 increased \$2.4 billion, as compared to 2010, reflecting approximately \$1.1 billion higher repurchases of common stock and \$1.5 billion of debt proceeds in 2010.

Credit Facilities

In September 2011, the company entered into two senior unsecured credit facilities (the Credit Agreements) in an aggregate principal amount of \$2 billion. The first Credit Agreement is for \$1.5 billion with a maturity date of September 2016. The second Credit Agreement was a 364-day revolving credit facility in an aggregate principal amount of \$500 million. In September 2012, the company entered into a new 364-day revolving credit facility in an aggregate principal amount of \$500 million, replacing the previous \$500 million 364-day revolving credit facility.

The Credit Agreements contain covenants which restrict 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 consolidated debt to capitalization (as set forth in the Credit Agreements) to exceed 65 percent. The company is in compliance with all covenants under the Credit Agreements. At December 31, 2012, there was no balance outstanding under either of these credit facilities.

Other Sources and Uses of Capital

Additional 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.

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, 2012, there were \$193 million of stand-by letters of credit, \$295 million of bank guarantees, and \$168 million of surety bonds outstanding.

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Contractual Obligations

The following table presents our contractual obligations as of December 31, 2012, and the estimated timing of future cash payments:

\$ in millions	Total	2013	2014 - 2015	2016 - 2017	2018 and beyond
Long-term debt	\$ 3,924	\$ 5	\$ 855	\$113	\$2,951
Interest payments on long-term debt	2,485	207	401	356	1,521
Operating leases	1,071	274	435	233	129
Purchase obligations ⁽¹⁾	6,907	4,187	2,364	177	179
Other long-term liabilities ⁽²⁾	878	88	242	100	448
Total contractual obligations	\$15,265	\$4,761	\$4,297	\$979	\$5,228

(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 vendors and subcontractors pertaining to funded contracts.

(2) Other long-term liabilities primarily consist of total accrued environmental reserves, deferred compensation, and other miscellaneous liabilities, of which \$88 million is related to environmental reserves recorded in other current liabilities. It excludes obligations for uncertain tax positions of \$175 million, as the timing of such payments, if any, cannot be reasonably estimated.

Further details regarding long-term debt and operating leases can be found in Notes 10 and 12, respectively, to the consolidated financial statements in Part II, Item 8.

CRITICAL ACCOUNTING POLICIES, ESTIMATES, AND JUDGMENTS

Revenue Recognition

Overview – We derive the majority of our business from long-term contracts for development, production and support activities for the U.S. Government. These contracts are accounted for in conformity with GAAP for construction-type and production-type contracts and federal government contractors, generally using the percentage-of-completion method accounting. We classify contract revenues as product or service depending on the predominant attributes of the contract. We consider the nature of these contracts and the types of products and services provided when determining the proper accounting method for a particular contract.

Percentage-of-Completion Accounting – The use of the percentage-of-completion method requires us to make reasonably dependable estimates for the design, manufacture, and delivery of our products and services. We generally recognize revenues from our long-term contracts under the cost-to-cost or the units-of-delivery measures of the percentage-of-completion method of accounting. The percentage-of-completion method recognizes revenue as work on a contract progresses. Most of our contracts use the cost-to-cost method, where revenue is calculated based on the percentage of total costs incurred in relation to total estimated costs at completion of the contract. The units-of-delivery measure recognizes revenues as deliveries are made to the customer, generally using unit sales values. Under both of these methods of percentage-of-completion accounting, we estimate profit as the difference between total estimated revenue and total estimated cost of a contract at completion, and recognize that profit as costs are incurred or as units are delivered.

Certain contracts contain provisions for price redetermination or for cost and/or performance incentives. These amounts are included in sales when they are reasonably estimable. Amounts representing un-priced change orders, claims, requests for equitable adjustment, or recovery of costs in excess of limitations in funding are included in estimated contract revenue only when they are reliably estimable and realization is probable. Changes in estimates of contract revenues, costs, or profits are recognized 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. Revenue and profit on future periods of contract performance are recognized as if the revised estimate 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 costs that are included in unbilled accounts receivable or inventoried costs, and any remaining amount is reflected in liabilities.



Changes in contract estimates occur for a variety of reasons, including changes in contract scope, changes in estimated revenue, and changes in contract cost estimates. These changes are often driven by events such as changes in estimated incentive fees, unanticipated risks affecting contract costs, the resolution of risk at lower or higher cost than anticipated, and changes in indirect cost allocations, such as overhead and general and administrative expenses. We employ an extensive contract management process involving several functional organizations and numerous personnel who are skilled at managing contract activities. Changes in estimates are frequent; the company performs on a broad portfolio of long-term contracts, many of which include complex and customized aerospace and electronic equipment and software, that often includes technology at the forefront of science. Significant changes in estimates on a single contract could have a material effect on the company's consolidated financial position or annual results of operations, and where such changes occur, separate disclosure is made of the nature, underlying conditions and financial impact of the change. For the impacts of changes in estimates on our consolidated statement of earnings, see the Consolidating Operating Results section above and Note 1 to the consolidated financial statements in Part II, Item 8.

Cost Estimation – The cost estimation process is based on the professional knowledge of our engineers, program managers and financial professionals, and draws on their significant experience and judgment. Such costs are typically incurred over a period of several years, and estimation of these costs requires the use of judgment. Factors that are considered in estimating the cost of the work to be completed include the availability, productivity and cost of labor, the nature and complexity of the work to be performed, the effect of change orders, the availability and cost of materials, the effect of any delays in performance, and the level of indirect cost allocations. We update our contract estimates at least annually and more frequently as determined by the occurrence of events or changes in circumstances. We generally review and reassess our cost and revenue estimates for each significant contract on a quarterly basis.

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 perform an annual impairment test of our goodwill as of November 30th, or between annual tests if events occur or circumstances change that suggest goodwill should be evaluated. When testing goodwill, we compare the fair value of each of our four reporting units to their 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 revenues, operating expenses, working capital, capital spending and cash flows for the reporting units over a multi-year period, as well as 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. 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's 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.

We also corroborate the fair values determined under the income approach using the market valuation method to estimate the fair value of our reporting units, by utilizing industry multiples (including relevant control premiums) of operating earnings. If the carrying value exceeds the fair value, we determine the fair value of the reporting unit's individual assets and liabilities and calculate the implied fair value of goodwill.

The results of our annual goodwill impairment test as of November 30, 2012, indicated that the estimated fair value of our reporting units exceed their carrying value. There were no impairment charges recorded in the years ended December 31, 2012, 2011 and 2010.

Fair values for three of our four reporting units substantially exceeded their respective carrying values as of our annual impairment testing on November 30, 2012. At our other reporting unit, Information Systems, fair value exceeds carrying value by approximately five percent. Information Systems carrying value includes goodwill of \$5.3

billion as of December 31, 2012. We face continued uncertainty in our business environment due to the substantial fiscal and economic challenges facing the U.S. Government, our primary customer. Unresolved issues arising from these challenges include potential sequestration and action on the national debt ceiling. Potential contract cancellations or terminations may arise from resolution of these issues and could cause our revenues, profits and cash flows to be lower than our current projections. In addition, market-based inputs to the calculations in the impairment test, such as weighted average cost of capital and terminal value (based on market comparisons) could also be negatively impacted. Such circumstances may result in an impairment of our goodwill. Further, the carrying values of our reporting units are significantly influenced by a number of factors including the discount rate used to determine our net pension liability. Therefore, an increase in the discount rate on our pension liability in 2013 or beyond could result in an impairment of goodwill absent any changes discussed above.

Retirement Benefits

Overview – For financial statement purposes, we account for our employee pension and other post-retirement plans in accordance with GAAP under FAS. We charge the costs of these plans to our contracts with customers in accordance with the FAR and the related CAS that govern such plans. In measuring periodic pension cost, both FAS and CAS recognize a normal service cost component, but there are differences in the way the remaining components of annual pension costs are calculated under each method, including the assumptions and methods used for measuring the plan obligations. As a result, retiree benefit plan expense amounts for FAS are different from the amounts for CAS. Further, differences result from dissimilar methodologies as to how estimated earnings on pension assets and interest expense on the pension obligations are measured, and the periods over which gains/losses related to pension assets and actuarial changes are amortized. CAS pension expense is charged to contracts and included in segment operating income, and the difference between the CAS and FAS pension expense is recorded in operating income at the consolidated company level.

For FAS purposes, we perform an annual review of the assumptions used in determining projected benefit obligations and the fair values of plan assets for our pension plans and other post-retirement benefit plans in consultation with our outside actuaries. In the event that we determine changes in the assumptions are warranted, or as a result of plan amendments, future FAS pension and post-retirement benefit expense could increase or decrease. The principal assumptions that have a significant effect on our consolidated financial position and results of operations are the discount rate, the expected long-term rate of return on plan assets, the health care cost trend rate and the estimated fair market value of plan assets.

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 the 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, the discount rate is determined using a portfolio of high quality bonds matching the notional cash outflows related to benefit payments for each significant benefit plan. Taking into consideration the factors noted above, our weighted-average pension composite discount rate was 4.12 percent at December 31, 2012, and 5.03 percent at December 31, 2011.

The effects of hypothetical changes in the discount rate for a single year may not be representative and may be asymmetrical or nonlinear for future years because of the application of the accounting corridor. The accounting corridor is a defined range within which amortization of net gains and losses is not required. Holding all other assumptions constant, and since net actuarial gains and losses were in excess of the 10 percent accounting corridor in 2012, an increase or decrease of 25 basis points in the discount rate assumption for 2012 would have the following estimated effect to:

	25 Basis Point Decrease in Discount	25 Basis Point Increase in Discount
<i>\$ increase/(decrease) in millions</i>	Rate	Rate
Pension expense	\$ 78	(\$ 78)
Post-retirement benefit expense	3	(3)
Pension obligation	950	(910)
Post-retirement benefit obligation	70	(65)

Expected Long-Term Rate of Return – The expected long-term rate of return on plan assets represents the average rate of earnings expected on funds invested. For 2012 and 2011, we assumed an expected long-term rate of return on plan assets of 8.25 percent and 8.5 percent, respectively. For 2013 pension and post-retirement benefit plan purposes, we have assumed an expected long-term rate of return on plan assets of 8.0 percent and 7.33 percent,



respectively. Holding all other assumptions constant, an increase or decrease of 25 basis points in the expected long-term rate of return assumption for 2012 would have the following estimated effect to:

	25 Basis Point	25 Basis Point
<i>\$ in millions</i>	Decrease	Increase
Pension expense	\$52	(\$52)
Post-retirement benefit expense	2	(2)

Health Care Cost Trend Rate – The health care cost trend rate represents the annual rate of change in the cost of health care benefits based on external estimates of health care inflation, changes in health care utilization or delivery patterns, technological advances, and changes in the health status of the plan participants. For the years ended December 31, 2012 and December 31, 2011, we used a combination of market expectations and economic projections, including the effect of health care reform, to select an expected initial health care cost trend rate of 7 percent for 2013 and 7.5 percent for 2012, respectively. Additionally, we expect an ultimate health care cost trend rate of 5 percent to be reached in 2017 for both 2012 and 2011. Although our actual cost experience is much lower at this time, market conditions and the potential effects of health care reform are expected to increase medical cost trends in the next one to three years, thus our past experience may not reflect future conditions.

A one percentage-point change in the initial through the ultimate health care cost trend rates within the range would have had the following estimated effect on 2012 post-retirement benefit results:

	1-Percentage Point	1-Percentage Point
\$ in millions	Decrease	Increase
Post-retirement benefit expense	(\$6)	\$ 5
Post-retirement benefit liability	(88)	73

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.

Litigation, Commitments, and Contingencies

We are subject to a range of claims, investigations, lawsuits, 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 charge to earnings and, if so, what amount based on consideration of the facts and circumstances of each matter as then known to us, including any settlement offers, and our assessment of the probability of the liabilities and whether the amount of the loss can be reasonably estimated. When we believe, based on the facts available to us, that a liability is probable and the loss is reasonably estimable, we record our best estimate of the amount of the ultimate loss. When a range of costs is reasonably estimable, but no amount within that range is a better estimate than another, we record what we estimate as the lower end of the range. Determinations whether to record a charge 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. For further information on the treatment of these contingencies, see Note 1, Note 11 and Note 12 to the consolidated financial statements in Part II, Item 8.

Environmental Accruals - We are subject to environmental laws and regulations in the jurisdictions in which we conduct operations. Factors that could result in changes to the assessment of probability, range of estimated costs, and environmental accruals include: modification of planned remedial actions, increase or decrease in the estimated time required to remediate, discovery of more or less extensive contamination than anticipated, 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.

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OTHER MATTERS

Accounting Standards Updates

Accounting standards updates effective after December 31, 2012, are not expected to have a material effect on the company's consolidated financial position or results of operations.

Business Dispositions

There were no material business dispositions in 2012 or 2010, however, in 2011 we completed the spin-off to our shareholders of HII effective March 31, 2011. HII operates the business that was previously the Shipbuilding segment (Shipbuilding) of the company prior to the spin-off. The spin-off was the culmination of the company's decision to explore strategic alternatives for Shipbuilding as it was determined to be in the best interests of shareholders, customers, and employees to allow both the company and Shipbuilding to pursue more effectively their respective opportunities to maximize value. We made a pro rata distribution to our shareholders of one share of HII common stock for every six shares of our common stock held on the record date of March 30, 2011, or 48.8 million shares of HII common stock. There was no gain or loss recognized by the company as a result of the spin-off transaction. In connection with the spin-off, HII issued senior notes and entered into a credit facility with third-party lenders, and HII used a portion of the proceeds of the notes and credit facility to fund a \$1.4 billion cash contribution to us. Sales for Shipbuilding for the three months ended March 31, 2011, were \$1.6 billion and sales for the year ended December 31, 2010, were \$6.7 billion. The assets, liabilities and operating results of this business unit are reported as discontinued operations in the consolidated financial statements for all periods presented.

Discontinued Operations - Results of operations for Shipbuilding, and an adjustment to the gain on a previous divestiture, were as follows:

	Year Ended I	December 31
\$ in millions	2011	2010
Sales	\$ 1,646	\$ 6,711
Earnings from discontinued operations	59	229
Income tax expense	(28)	(95)
Earnings, net of tax	31	134
Gain on divestiture, net of income tax expense of \$1 for 2011 and a benefit of \$5 for 2010	1	15
Earnings from discontinued operations, net of tax	\$ 32	\$ 149

Off-Balance Sheet Arrangements

As of December 31, 2012, we had no significant off-balance sheet arrangements other than operating leases. For a description of our operating leases, see Note 12 to our consolidated financial statements in Part II, Item 8.



Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Market 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 \$262 million at December 31, 2012.

Interest Rate Risk – We are exposed to interest rate risk with respect to our holdings of cash and cash equivalents of \$3.9 billion at December 31, 2012, and we are also exposed to interest rate risk on variable-rate short-term credit facilities for which there were no borrowings outstanding at December 31, 2012. At December 31, 2012, we have \$3.9 billion of long-term debt, primarily consisting of fixed rate debt, with a fair value of approximately \$4.8 billion.

Derivatives – We do not hold or issue derivative financial instruments for trading purposes. From time to time, we may enter into interest rate swap agreements to manage our exposure to interest rate fluctuations. At December 31, 2012, we have no interest rate swap agreements in effect.

Foreign Currency Risk – We are exposed to foreign currency risk with respect to our foreign 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. At December 31, 2012, foreign currency forward contracts with a notional amount of \$144 million were outstanding.

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 labor and other cost escalations in amounts that historically have been sufficient to cover cost increases over the period of performance.

A 10 percent change in interest rates or foreign currency exchange rates would not have a material impact to our consolidated financial position or results of operations.

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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, 2012 and 2011, and the related consolidated statements of earnings and comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2012. 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, 2012 and 2011, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012, 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, 2012, based on the criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 4, 2013 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte & Touche LLP McLean, Virginia February 4, 2013

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CONSOLIDATED STATEMENTS OF EARNINGS AND COMPREHENSIVE INCOME

Sales Product \$13,838 \$15,073 \$16,091 Service 11,380 11,330 11,2052 Total sales 25,218 26,412 28,143 Operating costs and expenses Product 10,415 11,1491 12,558 Service 9,223 9,295 10,291 Cheratl and administrative expenses 2,459 2,350 2,467 Operating income 3,130 3,276 2,877 Other (expense) income 3,130 3,276 2,877 Other (expense) income (212) (221) (269 Charge on dok tredemption - - (229) Other, expense 2,965 3,083 2,366 1,904 Earnings from continuing operations before income taxes 2,965 3,083 2,366 1,904 Earnings from discontinued operations, net of tax - 32 149 Net earnings per share - 0.11 0.50 Basic earnings per share S 7.96 \$ 7.54 \$ 6.41 Discontinued operations - 0.11		Year	Ended December 3	1
Product \$13,838 \$15,073 \$16,091 Service 11,380 11,239 12,052 Total sales 25,218 26,412 28,114 Operating costs and expenses 9,223 9,295 10,291 General and administrative expenses 2,450 2,350 2,467 Operating income 31,30 3,276 2,827 Oher (expense) income 212 (212) (223) Charge on debt redemption — — (223) Other, expense income 477 28 373 Farmings from continuing operations before income taxes 2,965 3,083 2,366 Federal and foreign income tax expense 997 462 297 Earnings from continuing operations, net of tax — 32 149 Earnings from continuing operations 1978 2,018 5,033 Stace armings per share 57.96 \$7.54 \$6.641 Discontinued operations — 0.11 0.50 Basic earnings per share \$7.96 \$	<i>\$ in millions, except per share amounts</i>	2012	2011	2010
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Operating costs and expenses Product 10,415 11,491 12,558 Service 9,223 9,295 10,291 General and administrative expenses 2,450 2,350 2,467 Operating income 3,130 3,276 2,827 Other (expense) inome (212) (221) (269) Charge on debt redemption - - (222) (269) Other, ext 47 28 37 Earnings from continuing operations before income taxes 2,965 3,083 2,366 Federal and foreign income tax expense 987 997 462 Earnings from continuing operations, net of tax - 32 149 Net carnings from discontinued operations, net of tax - 32 149 Discontinuid operations \$7,96 \$7,54 \$6,61 Discontinuid operations \$2,118 \$2,118 \$2,018 Basic earnings per share \$7,96 \$7,765 \$7,65 \$6,80 Otitutid earatings per share \$7,81	Service	11,380	11,339	12,052
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Interest expense (212) (221) (226) Charge on debt redemption (229) Other, net 47 28 37 Earnings from continuing operations before income taxes 2965 3,083 2,366 Federal and foreign income tax expense 987 997 462 Earnings from continuing operations 1,978 2,086 1,904 Earnings from continuing operations, net of tax 32 149 Net earnings per share 5 1,978 \$ 2,118 \$ 2,053 Basic earnings per share 0.11 0.50 Basic earnings per share \$ 7,96 \$ 7,54 \$ 6,641 Discontinued operations 0.11 0.50 Basic earnings per share \$ 7,96 \$ 7,55 \$ 6,691 Weighted-average common shares outstanding, in millions 248.6 276.8 296.9 Diluted earnings per share \$ 7,81 \$ 7,41 \$ 6,32 Discontinued operations 0.11 0.50 <	Operating income	3,130	3,276	2,827
Charge on debt redemption (229 Other, net 47 28 37 Earnings from continuing operations before income taxes 2,965 3,083 2,366 Ederal and foreign income tax expense 997 462 Earnings from continuing operations 1,978 2,086 1,904 Earnings from discontinued operations, net of tax - 32 149 Net earnings from discontinued operations 1,978 \$ 2,118 \$ 2,053 Basic earnings per share - 0.11 0.50 Basic earnings per share - 0.11 0.50 Basic earnings per share 57.96 \$ 7.65 \$ 6.61 Basic earnings per share 57.96 \$ 7.75 \$ 6.51 Basic earnings per share 57.96 \$ 7.75 \$ 6.631 Diluted earnings per share 57.96 \$ 7.75 \$ 6.82 Diluted earnings per share 57.81 \$ 7.52 \$ 6.82 Diluted earnings per share 57.81 \$ 7.52 \$ 6.82 Diluted earnings per share <td>Other (expense) income</td> <td></td> <td></td> <td></td>	Other (expense) income			
Other, net 47 28 37 Earnings from continuing operations before income taxes 2,965 3,083 2,366 Federal and foreign income tax expense 987 997 462 Earnings from continuing operations 1,978 2,086 1,904 Earnings from discontinued operations, net of tax — 32 149 Net earnings per share \$1,978 \$2,118 \$2,053 Basic earnings per share \$7.96 \$7.54 \$6.41 Discontinued operations \$7.96 \$7.55 \$6.91 Weighted-average common shares outstanding, in millions 248.6 276.8 296.9 Diluted earnings per share \$7.81 \$7.41 \$6.32 Discontinued operations \$7.81 \$7.41 \$6.632 Diluted earnings per share \$7.81 \$7.41 \$6.632 Diluted earnings per share \$7.81 \$7.52 \$6.82 Diluted earnings per share \$7.81 \$7.52 \$6.82 Diluted earnings per share \$7.81 \$7.52 \$6.82	Interest expense	(212)	(221)	(269)
Earnings from continuing operations before income taxes2,9653,0832,366Federal and foreign income tax expense987997462Earnings from continuing operations1,9782,0861,904Earnings from discontinued operations, net of tax—32149Net earnings\$ 1,978\$ 2,118\$ 2,053Basic earnings per share </td <td>Charge on debt redemption</td> <td>_</td> <td>_</td> <td>(229)</td>	Charge on debt redemption	_	_	(229)
Federal and foreign income tax expense 987 997 462 Earnings from continuing operations 1,978 2,086 1,904 Earnings from discontinued operations, net of tax — 32 149 Net earnings \$ 1,978 \$ 2,118 \$ 2,053 Basic earnings per share	Other, net	47	28	37
Interval1,9782,0861,904Earnings from continued operations, net of tax $-$ 32149Earnings from discontinued operations, net of tax $-$ 32149Net earnings\$1,978\$2,118\$2,053Basic earnings per share $-$ 0.110.50Continuing operations $-$ 0.110.50Basic earnings per share\$7.96\$7.54\$ 6.41Discontinued operations $-$ 0.110.50Basic earnings per share\$7.96\$7.65\$ 6.91Weighted-average common shares outstanding, in millions248.6276.8296.9Diluted earnings per shareContinuing operations\$7.81\$7.41\$ 6.32Diluted earnings per share\$7.81\$ 7.41\$ 6.32Diluted earnings per share\$7.81\$ 7.52\$ 6.682Weighted-average diluted shares outstanding, in millions253.4281.6301.1Net earnings (from above)\$ 1.978\$ 2,118\$ 2,053Other comprehensive income\$ 1.978\$ 2,118\$ 2,053Change in cumulative translation adjustment8(4)(41Change in unmedized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unmedized (loss) ing an on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unmed	Earnings from continuing operations before income taxes	2,965	3,083	2,366
Earnings from discontinued operations, net of tax32149Net earnings\$ 1,978\$ 2,118\$ 2,053Basic earnings per share\$ 7.96\$ 7.54\$ 6.41Discontinued operations $$ 0.11 0.50 Basic earnings per share\$ 7.96\$ 7.54\$ 6.41Discontinued operations $$ 0.11 0.50 Basic earnings per share\$ 7.96\$ 7.65\$ 6.91Weighted-average common shares outstanding, in millions248.6 276.8 296.9Diluted earnings per share\$ 7.81\$ 7.41\$ 6.32Discontinued operations $$ 0.11 0.50 Diluted earnings per share\$ 7.81\$ 7.41\$ 6.32Discontinued operations $$ 0.11 0.50 Diluted earnings per share\$ 7.81\$ 7.52\$ 6.82Weighted-average diluted shares outstanding, in millions 253.4 281.6 301.1 Net earnings (from above)\$ 1,978\$ 2,118\$ 2,053Other comprehensive income\$ 1,978\$ 2,118\$ 2,053Change in unmalized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$ 0 in 2012, \$ 2 in 2011, and \$ 0 in 2010 (2) (4) $(1,203)$ $(1,249)$ 297 Other comprehensive (loss) in cout, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$ (183) in 2010 $(1,249)$ 297 $(1,257)$ 257	Federal and foreign income tax expense	987	997	462
Net earnings\$ 1,978\$ 2,118\$ 2,053Basic earnings per share $\$ <t< td=""><td>Earnings from continuing operations</td><td>1,978</td><td>2,086</td><td>1,904</td></t<>	Earnings from continuing operations	1,978	2,086	1,904
Basic earnings per shareContinuing operations\$ 7.96\$ 7.54\$ 6.41Discontinued operations $-$ 0.110.50Basic earnings per share\$ 7.96\$ 7.65\$ 6.91Weighted-average common shares outstanding, in millions248.6276.8296.9Diluted earnings per shareContinuing operations248.6276.8296.9Diluted earnings per share $-$ 0.110.50Discontinued operations $-$ 0.110.50Diluted earnings per share $-$ 0.110.50Diluted earnings per share\$ 7.81\$ 7.41\$ 6.32Discontinued operations $-$ 0.110.50Diluted earnings per share\$ 7.81\$ 7.52\$ 6.82Weighted-average diluted shares outstanding, in millions253.4281.6301.1Net earnings (from above)\$ 1.978\$ 2,118\$ 2,053Other comprehensive income $ -$ Change in unmultive translation adjustment8(4)(41)Change in unmedized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$ 0 in 2012, \$2 in 2011, and \$ 0 in 2010(2)(4)1Change in unamotized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Earnings from discontinued operations, net of tax	_	32	149
Basic earnings per shareContinuing operations\$ 7.96\$ 7.54\$ 6.41Discontinued operations $-$ 0.110.50Basic earnings per share\$ 7.96\$ 7.65\$ 6.91Weighted-average common shares outstanding, in millions248.6276.8296.9Diluted earnings per shareContinuing operations248.6276.8296.9Diluted earnings per share $-$ 0.110.50Discontinued operations $-$ 0.110.50Diluted earnings per share $-$ 0.110.50Diluted earnings per share\$ 7.81\$ 7.41\$ 6.32Discontinued operations $-$ 0.110.50Diluted earnings per share\$ 7.81\$ 7.52\$ 6.82Weighted-average diluted shares outstanding, in millions253.4281.6301.1Net earnings (from above)\$ 1.978\$ 2,118\$ 2,053Other comprehensive income $ -$ Change in unmultive translation adjustment8(4)(41)Change in unmedized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$ 0 in 2012, \$2 in 2011, and \$ 0 in 2010(2)(4)1Change in unamotized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Net earnings	\$ 1,978	\$ 2,118	\$ 2,053
Continuing operations $\$7.96$ $\$7.54$ $\$6.41$ Discontinued operations0.110.50Basic earnings per share $\$7.96$ $\$7.65$ $\$6.91$ Weighted-average common shares outstanding, in millions 248.6 276.8 296.9 Diluted earnings per shareContinuing operations $\$7.81$ $\$7.41$ $\$6.32$ Discontinued operations $$ 0.110.50Diluted earnings per share $$ 0.110.50Diluted earnings per share $\$7.81$ $\$7.52$ $\$6.82$ Weighted-average diluted shares outstanding, in millions 253.4 281.6 301.1 Net earnings (from above) $\$1.978$ $\$2.118$ $\$2.053$ Other comprehensive income $\$$ (4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Pasia cominge per shave			
Discontinued operations $ 0.11$ 0.50 Basic earnings per share\$7.96\$7.65\$6.91Weighted-average common shares outstanding, in millions248.6276.8296.9Diluted earnings per shareContinuing operations\$7.81\$7.41\$6.32Discontinued operations $ 0.11$ 0.50 Diluted earnings per share $ 0.11$ 0.50 Diluted earnings per share $ 0.11$ 0.50 Diluted earnings per share\$7.81\$7.52\$6.82Weighted-average diluted shares outstanding, in millions253.4281.6301.1Net earnings (from above)\$1.978\$2,118\$2,053Other comprehensive income(2)(4)(41)Change in cumulative translation adjustment 6 (4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257		\$ 7.06	\$ 7.54	\$ 6.41
Basic earnings per share\$ 7.96\$ 7.65\$ 6.91Weighted-average common shares outstanding, in millions 248.6 276.8 296.9 Diluted earnings per shareContinuing operations\$ 7.81\$ 7.41\$ 6.32Discontinued operations $$ 0.11 0.50 Diluted earnings per share\$ 7.81\$ 7.52\$ 6.82Weighted-average diluted shares outstanding, in millions 253.4 281.6 301.1 Net earnings (from above)\$ 1.978\$ 2.118\$ 2.053Other comprehensive income 8 (4)(41)Change in cumulative translation adjustment 8 (4)(41)Change in unmedized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1.249)297Other comprehensive (loss) income, net of tax(1.297)(1.257)257		\$ 7.90		
Weighted-average common shares outstanding, in millions 248.6 276.8 296.9 Diluted earnings per shareContinuing operations $$7.81$ $$7.41$ $$6.32$ Discontinued operations $ 0.11$ 0.50 Diluted earnings per share $$7.81$ $$7.52$ $$6.82$ Weighted-average diluted shares outstanding, in millions 253.4 281.6 301.1 Net earnings (from above) $$1.978$ $$2,118$ $$2,053$ Other comprehensive income $$$ (4) (41) Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010 (2) (4) 11 Change in unmortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010 $(1,249)$ 297 Other comprehensive (loss) income, net of tax $(1,297)$ $(1,257)$ 257		\$ 7.06		
Diluted earnings per shareContinuing operations\$ 7.81\$ 7.41\$ 6.32Discontinued operations-0.110.50Diluted earnings per share\$ 7.81\$ 7.52\$ 6.82Weighted-average diluted shares outstanding, in millions253.4281.6301.1Net earnings (from above)\$ 1,978\$ 2,118\$ 2,053Other comprehensive income8(4)(41)Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257				
Continuing operations $\$$ 7.81 $\$$ 7.41 $\$$ 6.32Discontinued operations $ 0.11$ 0.50 Diluted earnings per share $\$$ 7.81 $\$$ 7.52 $\$$ 6.82Weighted-average diluted shares outstanding, in millions 253.4 281.6301.1Net earnings (from above) $\$$ 1,978 $\$$ 2,118 $\$$ 2,053Other comprehensive incomeChange in cumulative translation adjustment $\$$ (4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of $\$$ 0 in 2012, $\$$ 2 in 2011, and $\$$ 0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of $\$$ 660 in 2012, $\$$ 22 in 2011, and $\$$ (183) in 2010(1,303)(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257257	Weighted-average common shares outstanding, in millions	248.6	276.8	296.9
Discontinued operations $ 0.11$ 0.50 Diluted earnings per share\$ 7.81\$ 7.52\$ 6.82Weighted-average diluted shares outstanding, in millions 253.4 281.6 301.1 Net earnings (from above)\$ 1,978\$ 2,118\$ 2,053Other comprehensive income8(4)(41)Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Diluted earnings per share			
Diluted earnings per share\$ 7.81\$ 7.52\$ 6.82Weighted-average diluted shares outstanding, in millions253.4281.6301.1Net earnings (from above)\$ 1,978\$ 2,118\$ 2,053Other comprehensive income8(4)(41)Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Continuing operations	\$ 7.81	\$ 7.41	\$ 6.32
Weighted-average diluted shares outstanding, in millions253.4281.6301.1Net earnings (from above)\$ 1,978\$ 2,118\$ 2,053Other comprehensive income6666Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit6(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Discontinued operations	—	0.11	0.50
Net earnings (from above)\$ 1,978\$ 2,118\$ 2,053Other comprehensive income69999Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit61of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in112011, and \$(183) in 2010(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Diluted earnings per share	\$ 7.81	\$ 7.52	\$ 6.82
Other comprehensive income8(4)(41)Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,303)(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257	Weighted-average diluted shares outstanding, in millions	253.4	281.6	301.1
Other comprehensive income8(4)(41)Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,303)(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257		# 1 0= 0	¢ 0 110	¢ 0.050
Change in cumulative translation adjustment8(4)(41)Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,303)(1,249)297Other comprehensive (loss) income, net of tax(1,297)(1,257)257		\$ 1,978	\$ 2,118	\$ 2,053
Change in unrealized (loss) gain on marketable securities and cash flow hedges, net of tax benefit of \$0 in 2012, \$2 in 2011, and \$0 in 2010(2)(4)1Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010(1,303)(1,249)297Other comprehensive (loss) income, net of tax(1,247)(1,257)257	1			
of \$0 in 2012, \$2 in 2011, and \$0 in 2010 (2) (4) 1 Change in unamortized benefit plan costs, net of tax benefit (expense) of \$860 in 2012, \$823 in 2011, and \$(183) in 2010 (1,303) (1,249) 297 Other comprehensive (loss) income, net of tax (1,257) (1,257) 257		8	(4)	(41)
2011, and \$(183) in 2010 (1,303) (1,249) 297 Other comprehensive (loss) income, net of tax (1,297) (1,257) 257		(2)	(4)	1
Other comprehensive (loss) income, net of tax (1,297) (1,257) 257		(1.303)	(1.249)	297

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

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

	Decemb	er 31
\$ in millions	2012	2011
Assets		
Cash and cash equivalents	\$ 3,862	\$ 3,002
Accounts receivable, net of progress payments	2,858	2,964
Inventoried costs, net of progress payments	798	873
Deferred tax assets	574	496
Prepaid expenses and other current assets	300	411
Total current assets	8,392	7,746
Property, plant and equipment, net of accumulated depreciation of \$4,146 in 2012 and \$3,933 in 2011	2,887	3,047
Goodwill	12,431	12,374
Non-current deferred tax assets	1,542	900
Other non-current assets	1,291	1,344
Total assets	\$26,543	\$25,411
Liabilities		
Trade accounts payable	\$ 1,392	\$ 1,481
Accrued employee compensation	1,173	1,196
Advance payments and billings in excess of costs incurred	1,759	1,777
Other current liabilities	1,732	1,681
Total current liabilities	6,056	6,135
Long-term debt, net of current portion of \$5 in 2012 and 2011	3,930	3,935
Pension and post-retirement plan liabilities	6,085	4,079
Other non-current liabilities	958	926
Total liabilities	17,029	15,075

Commitments and contingencies (Note 12)

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: 2012 - 239,209,812; 2011		
- 253,889,622	239	254
Paid-in capital	2,924	3,873
Retained earnings	11,138	9,699
Accumulated other comprehensive loss	(4,787)	(3,490)
Total shareholders' equity	9,514	10,336
Total liabilities and shareholders' equity	\$26,543	\$25,411

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31		1
\$ in millions	2012	2011	2010
Operating activities			
Sources of cash—continuing operations			
Cash received from customers			
Collections on billings	\$ 20,892	\$ 21,628	\$ 23,531
Progress payments	4,472	4,803	4,437
Other cash receipts	99	149	40
Total sources of cash—continuing operations	25,463	26,580	28,008
Uses of cash—continuing operations			
Cash paid to suppliers and employees	(21,074)	(22,059)	(23,759)
Pension contributions	(367)	(1,084)	(789)
Interest paid, net of interest received	(200)	(227)	(269)
Income taxes paid, net of refunds received	(1,119)	(810)	(1,071)
Excess tax benefits from stock-based compensation	(45)	(17)	(22)
Other cash payments	(18)	(36)	(42)
Total uses of cash—continuing operations	(22,823)	(24,233)	(25,952)
Cash provided by continuing operations	2,640	2,347	2,056
Cash (used in) provided by discontinued operations		(232)	397
Net cash provided by operating activities	2,640	2,115	2,453
Investing activities	,	,	,
Continuing operations			
Capital expenditures	(331)	(492)	(585)
Maturities of short-term investments	250	200	
Contribution received from the spin-off of shipbuilding business		1,429	
Purchases of short-term investments		(450)	(2)
Other investing activities, net	(3)	56	16
Cash (used in) provided by investing activities from continuing operations	(84)	743	(571)
Cash used in investing activities from discontinued operations		(63)	(189)
Net cash (used in) provided by investing activities	(84)	680	(760)
Financing activities			()
Common stock repurchases	(1,316)	(2,295)	(1,177)
Cash dividends paid	(535)	(543)	(545)
Proceeds from exercises of stock options	188	101	142
Excess tax benefits from stock-based compensation	45	17	22
Payments of long-term debt		(768)	(1,011)
Proceeds from issuance of long-term debt	_	_	1,484
Other financing activities, net	(78)	(6)	(2)
Cash used in financing activities from continuing operations	(1,696)	(3,494)	(1,087)
Cash used in financing activities from discontinued operations	(_,) 		(179)
Net cash used in financing activities	(1,696)	(3,494)	(1,266)
Increase (decrease) in cash and cash equivalents	860	(699)	427
Cash and cash equivalents, beginning of year	3,002	3,701	3,274
Cash and cash equivalents, end of year	\$ 3,862	\$ 3,002	\$ 3,701

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

	Year	Year Ended December 31		
\$ in millions	2012	2011	2010	
Reconciliation of net earnings to net cash provided by operating activities				
Net earnings	\$1,978	\$2,118	\$2,053	
Net earnings from discontinued operations	—	(32)	(134	
Adjustments to reconcile to net cash provided by operating activities:				
Depreciation	448	462	446	
Amortization	62	82	109	
Stock-based compensation	183	140	136	
Excess tax benefits from stock-based compensation	(45)	(17)	(22	
Pre-tax gain on sale of businesses	—	—	(10	
Charge on debt redemption	—	—	229	
(Increase) decrease in assets:				
Accounts receivable, net	90	350	(471	
Inventoried costs, net	46	(2)	(64	
Prepaid expenses and other assets	(65)	16	36	
Increase (decrease) in liabilities:				
Accounts payable and accruals	23	(341)	70	
Deferred income taxes	78	441	89	
Income taxes payable	(75)	(32)	(26	
Retiree benefits	(71)	(904)	(354	
Other, net	(12)	66	(31	
Cash provided by continuing operations	2,640	2,347	2,056	
Cash (used in) provided by discontinued operations		(232)	397	
Net cash provided by operating activities	\$2,640	\$2,115	\$2,453	

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

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CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Year	Year Ended December 31			
<i>§ in millions, except per share amounts</i>	2012	2011	2010		
Common stock					
Beginning of year	\$ 254	\$ 291	\$ 307		
Common stock repurchased	(21)	(40)	(20)		
Shares issued for stock awards and options	6	3	4		
End of year	239	254	291		
Paid-in capital					
Beginning of year	3,873	7,778	8,657		
Common stock repurchased	(1,310)	(2,264)	(1,143)		
Stock compensation and option exercises	359	236	264		
Spin-off of shipbuilding business	2	(1,877)			
End of year	2,924	3,873	7,778		
Retained earnings					
Beginning of year	9,699	8,124	6,616		
Net earnings	1,978	2,118	2,053		
Dividends declared	(539)	(543)	(545)		
End of year	11,138	9,699	8,124		
Accumulated other comprehensive loss					
Beginning of year	(3,490)	(2,757)	(3,014)		
Other comprehensive (loss) income, net of tax	(1,297)	(1,257)	257		
Spin-off of shipbuilding business		524			
End of year	(4,787)	(3,490)	(2,757)		
Total shareholders' equity	\$ 9,514	\$10,336	\$13,436		
Cash dividends declared per share	\$ 2.15	\$ 1.97	\$ 1.84		

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

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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 providing innovative systems, products and solutions in unmanned systems, cybersecurity, C4ISR, and logistics and modernization to government and commercial customers worldwide through four sectors: Aerospace Systems, Electronic Systems, Information Systems and Technical Services. We participate in many high-priority defense and government services programs in the United States (U.S.) and abroad as a prime contractor, principal subcontractor, partner, or preferred supplier. We conduct the majority 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, as well as domestic and international commercial customers.

Principles of Consolidation

The consolidated financial statements include the accounts of Northrop Grumman and its subsidiaries. All 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 revenues 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 business results 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 or the units-of-delivery method of percentage-of-completion accounting. 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 are accounted for using the units-of-delivery method. Under this method, sales are recognized as units are delivered to the customer. The company estimates profit on contracts utilizing both of these methods as the difference between total estimated revenue and total estimated cost of a contract 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 revenue as product or service depending upon the predominant attributes of the contract.

Contract revenues may include estimated amounts not contractually agreed to by the customer, including price redetermination, cost or performance incentives (such as award and incentive fees), un-priced change orders, claims, and requests for equitable adjustment.

Amounts pertaining to provisions for price redetermination or for cost and/or performance incentives are included in sales when they are reasonably estimable. 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 revenue when they are probable of recovery in an amount at least equal to the cost.

Amounts representing claims (including change orders unapproved as to both scope and price) and requests for equitable adjustment are included in estimated contract revenue only when they are reliably estimable and realization is probable. As of December 31, 2012, the recognized amounts related to claims and requests for equitable adjustment are not material individually or in the 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 the contract is terminated for default, the contractor may not be entitled to recover any of its 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. The company does not have any contract terminations in process that would have a material effect on our consolidated financial position or annual results of operations at December 31, 2012.

Changes in estimates of contract sales, costs, or profits are recognized 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, and revenue and profit on future periods of contract performance are recognized as if the revised estimate 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 identifiable. Loss provisions are first offset against costs that are included in unbilled accounts receivable or inventoried costs, and any remaining amount is reflected in liabilities.

Changes in contract estimates occur for a variety of reasons, including changes in contract scope, other changes in estimated revenue and changes in contract cost estimates. These changes are often driven by events such as changes in estimated incentive fees, unanticipated risks affecting contract costs, the resolution of risk at lower or higher cost than anticipated, and changes in indirect cost allocations, such as overhead and general and administrative expenses. We employ an extensive contract management process involving several functional organizations and numerous personnel who are skilled at managing contract activities. Changes in estimates are frequent; the company performs on a broad portfolio of long-term contracts, many of which include complex and customized aerospace and electronic equipment and software. These contracts often include technology that is at the forefront of science. Significant changes in estimates on a single contract could have a material effect on the company's consolidated financial position or annual results of operations, and where such changes occur, separate disclosure is made of the nature, underlying conditions and financial impact of the change. Aggregate net changes in contract estimates recognized using the cumulative catch-up method of accounting increased operating income by \$985 million (\$2.53 per diluted share) in 2012, \$738 million (\$1.70 per diluted share) in 2011, and \$675 million (\$1.46 per diluted share) in 2010. No discrete event or adjustments to an individual contract within the aggregate net changes in contract estimates for 2012, 2011, or 2010 was material to the consolidated statements of earnings and comprehensive income for such annual period.

General and Administrative Expenses

In accordance with industry practice and the regulations that govern the cost accounting requirements for government contracts, most general and administrative expenses incurred at both the segment and corporate locations are considered allowable and allocable costs on government contracts. These costs are allocated to contracts in progress on a systematic basis and are included as a component of total contract costs, including any provision for loss contracts.

Research and Development

Company-sponsored research and development activities primarily include independent research and development (IR&D) efforts related to government programs. Company-sponsored IR&D expenses are included in general and administrative expenses in the consolidated statements of earnings and comprehensive income and are generally allocated to government contracts. Company-sponsored IR&D expenses totaled \$520 million, \$543 million, and \$580 million, in 2012, 2011, and 2010, respectively. Expenses for research and development sponsored by the customer are charged directly to the related contracts.

Environmental Costs

Environmental liabilities are accrued when the company determines that, based on the facts and circumstances known to the company, such amounts are reasonably estimable and it is probable that a liability will be found to have been incurred. When only a range of amounts is established and no amount within the range is more probable than another, the minimum amount in the range is recorded. Environmental liabilities are recorded on an undiscounted basis and do not include legal costs or asset retirement obligations. At sites involving multiple parties, the company accrues environmental liabilities based upon its expected share of liability, taking into account the financial viability of other jointly liable parties. A portion of the environmental remediation costs is expected to be recoverable through overhead charges on government contracts and accordingly, such amounts are deferred in inventoried costs (current portion) and other non-current assets. Environmental expenditures are expensed or capitalized as appropriate. Capitalized expenditures relate to long-lived improvements in currently operating facilities. The company does not record insurance recoveries before collection is probable. At December 31, 2012 and 2011, the company did not have any accrued receivables related to insurance reimbursements.



Fair Value of Financial Instruments

The company utilizes fair value measurement guidance prescribed by GAAP to value its financial instruments. The guidance includes a definition of fair value, prescribes methods for measuring fair value, establishes a fair value hierarchy based on the inputs used to measure fair value and expands disclosures about the use of fair value measurements.

The valuation techniques utilized are based upon 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 modelderived 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 as trading and available-for-sale are recorded at fair value. For available-for-sale securities, any changes in unrealized gains and losses are reported as a separate 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. In addition, 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. Changes in the fair value of derivative financial instruments that qualify and are designated as fair value hedges are recorded in earnings from continuing operations, while the effective portion of the changes in the fair value of derivative financial instruments that qualify and are designated as fair value hedges are recorded in earnings from continuing operations, while the effective portion of the changes in the fair value of derivative financial instruments that qualify and are designated as cash flow hedges are recorded in other comprehensive income. The company may use derivative financial instruments to manage its exposure to interest rate and foreign currency exchange risks and to balance its fixed and variable rate long-term debt portfolio. 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 by requiring high credit standards for counterparties and through periodic settlements of positions. For derivative financial instruments not designated as cash flow 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.

Income Taxes

Provisions for federal and foreign income taxes are calculated on reported financial statement pre-tax income 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 interest accrued related to unrecognized tax benefits in income tax expense. In accordance with industry practice and the regulations that govern the cost accounting requirements for government contracts, state and local taxes are considered allowable and allocable costs on government contracts and are therefore recorded in operating costs and expenses. Likewise, the company recognizes state interest accrued related to unrecognized as a component of income tax expense. State and local income and franchise tax provisions are allocable to government contracts in process and, accordingly, are included in operating income.

Uncertain tax position represents the company's expected treatment of a tax position taken in a filed tax return, or planned to be taken in a future tax return or claim, that has 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 contracts accounted for under the cost-to-cost measure of the percentage-of-completion method of accounting). Accounts receivable also include certain estimated contract change amounts, claims or requests for equitable adjustment in negotiation that are probable of recovery, and amounts retained by the customer pending contract completion.

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. Progress payments received in excess of inventoried costs and unbilled accounts receivable amounts on a contract by contract basis are recorded as advance payments and billings in excess of costs incurred in the consolidated statements of financial position.

Inventoried costs primarily relate to work in process under units-of-delivery contracts. 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.

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:

		Decembe	er 31
Useful life in years, \$ in millions	Useful Life	2012	2011
Land and land improvements	Up to $40^{(1)}$	\$ 373	\$ 375
Buildings and improvements	Up to 45	1,421	1,433
Machinery and other equipment	Up to 20	4,233	4,143
Capitalized software costs	3-5	413	444
Leasehold improvements	Length of Lease ⁽¹⁾	593	585
Property, plant and equipment, cost		7,033	6,980
Accumulated depreciation		(4,146)	(3,933)
Property, plant and equipment, net		\$2,887	\$3,047

(1) Land is not a depreciable asset. Leasehold improvements are depreciated over the useful life of the asset if it is shorter than 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 minimum 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 performs impairment tests for goodwill as of November 30th of each year or when the company believes a potential impairment exists. When it is determined that impairment has occurred, a charge to operations is recorded. Goodwill and other purchased intangible asset balances are included in the identifiable assets of the business segment to which they have been assigned. Purchased intangible assets are generally 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, 2012 and 2011, the carrying values associated with these policies are \$271 million and \$257 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 charges to earnings when management, after taking into consideration the facts and circumstances of each matter as then known to management, including any settlement offers, has determined that it is probable that 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 probable than another, the lower end of the range is recorded. Legal fees are expensed as incurred.

Retirement Benefits

The company sponsors various pension plans covering substantially all employees. The company also provides post-retirement benefit plans 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 pension and other post-retirement benefit plans are determined using methodologies that involve several actuarial assumptions, the most significant of which are the discount rate, the expected long-term rate of asset return, and the health care medical cost experience trend rate. Unamortized benefit plan costs consist primarily of accumulated net after-tax actuarial losses.

Net actuarial gains or losses are amortized to expense in future periods when they exceed ten percent of the greater of the plan assets or projected benefit obligations by benefit plan. The excess of gains or losses over the ten percent threshold are subject to amortization over the average future service period of employees of approximately ten years. The fair values of plan assets are determined based on prevailing market prices or estimated fair value for investments with no available quoted prices. Not all net periodic pension income or expense is recognized in net earnings in the year incurred because it is allocated to production as product 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

All of the company's stock compensation plans are classified as equity plans and compensation expense recognized is net of estimated forfeitures over the vesting period. 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 and at each reporting date, the number of shares is adjusted to equal the number ultimately expected to vest. Compensation expense for stock awards is expensed over the vesting period, generally three years.

Foreign Currency Translation

For operations outside the U.S. that have functional currencies other than the U.S. dollar, results of operations and cash flows are translated at average exchange rates during the period, and assets and liabilities are translated at end-of-period exchange rates. Translation adjustments are generally included as a separate component of accumulated other comprehensive loss in the consolidated statements of shareholders' equity.

Accounting Standards Updates

Accounting standards updates effective after December 31, 2012, are not expected to have a material effect on the company's consolidated financial position or results of operations.



Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss are as follows:

	December 31	
\$ in millions	2012	2011
Unamortized benefit plan costs, net of tax benefit of \$3,149 in 2012 and \$2,289 in 2011	(\$4,790)	(\$3,487)
Cumulative translation adjustment	4	(4)
Net unrealized (loss) gain on marketable securities and cash flow hedges, net of tax expense of \$0 in both 2012 and		
2011	(1)	1
Total accumulated other comprehensive loss	(\$4,787)	(\$3,490)

The changes in unamortized benefit plan costs, net of tax, resulted in other comprehensive loss of \$1.3 billion and \$1.2 billion for the years ended December 31, 2012 and 2011, respectively, in the consolidated statements of earnings and comprehensive income. Unamortized benefit plan costs consist primarily of net after-tax actuarial loss amounts totaling \$5.1 billion and \$3.9 billion as of December 31, 2012 and 2011, respectively. Net actuarial gains or losses are re-determined annually and principally arise from changes in the rate used to discount the benefit obligations and differences in expected and actual returns on plan assets. Net actuarial gains or losses are amortized to expense in future periods when they exceed 10 percent of the greater of the plan assets or projected benefit obligations by benefit plan. The excess of gains or losses over the ten percent threshold are subject to amortization over the average future service period of employees of approximately 10 years.

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

Basic Earnings Per Share

Basic earnings per share from both continuing and discontinued operations are calculated by dividing the respective 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 4.8 million, 4.8 million, and 4.2 million shares for the years ended December 31, 2012, 2011, and 2010, respectively. The weighted-average diluted shares outstanding for the years ended December 31, 2012, 2011, and 2010, excludes anti-dilutive stock options to purchase approximately 1.8 million, 2.8 million, and 2.8 million shares, respectively, because such options have exercise prices in excess of the average market price of the company's common stock during the year.

Share Repurchases

The table below summarizes the company's share repurchases:

Repurchase Program	Amount Authorized	Total Shares Retired	Average Price		Sha	res Repurchase (in millions)	ed
Authorization Date	(in millions)	(in millions)	Per Share ⁽²⁾	Date Completed	2012	2011	2010
December 19, 2007	\$3,600	60.2	\$59.82	August 2010	_	_	15.7
June 16, 2010 ⁽¹⁾	\$5,350	65.1	\$59.42		20.9	40.2	4.0
					20.9	40.2	19.7

(1) On June 16, 2010, the company's board of directors authorized a share repurchase program of up to \$2.0 billion of the company's common stock. Following this initial authorization, the board of directors increased the remaining repurchase authorization to \$4.0 billion in April 2011. After further repurchases reduced the remaining authorization to less than \$1 billion, the board of directors again increased the remaining authorization to \$2.0 billion in September 2012. As of December 31, 2012, repurchases under the program totaled \$3.9 billion, and \$1.5 billion remained under this share repurchase authorization. The repurchase program will expire when we have used all authorized funds for repurchase.

(2) Includes commissions paid.

Share repurchases take place under pre-established programs, depending on market conditions 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 program authorizations.

In connection with the spin-off of the former shipbuilding business (see Note 3), the company obtained a Private Letter Ruling from the Internal Revenue Service (IRS) that generally limits our share repurchases to approximately 88 million shares within two years of the spin-off. The limitation expires on March 31, 2013. Since the spin-off we have repurchased approximately 61 million shares of our common stock, and as of December 31, 2012, the company may repurchase approximately 27 million shares under the Private Letter Ruling limitation. Cash available from unusual transactions, such as the disposition of significant assets, should they arise, can be used to repurchase additional shares.

Dividends on Common Stock

In May 2012, the company increased the quarterly common stock dividend to \$0.55 per share; an increase from the previous amount of 0.50 per share.

In May 2011, the company increased the quarterly common stock dividend to \$0.50 per share from the previous amount of 0.47 per share.

In May 2010, the company increased the quarterly common stock dividend to \$0.47 per share from the previous amount of 0.43 per share.

3. BUSINESS DISPOSITIONS

There were no material dispositions in 2012.

Huntington Ingalls Industries, Inc. (HII)

Effective March 31, 2011, the company completed the spin-off to its shareholders of HII. HII was formed to operate the company's former shipbuilding business. The company made a pro rata distribution to its shareholders of one share of HII common stock for every six shares of the company's common stock held on the record date of March 30, 2011, or 48.8 million shares of HII common stock. HII paid a \$1.4 billion cash contribution to the company. There was no gain or loss recognized as a result of the spin-off transaction.

Prior to the completion of the spin-off, the company and HII entered into a Separation and Distribution Agreement dated March 29, 2011, and several other agreements that govern the post-separation relationship. These agreements generally provide that each party is responsible for its respective assets, liabilities and obligations following the spin-off, including employee benefits, intellectual property, information technology, insurance, and tax-related assets and liabilities.

In connection with the spin-off, the company incurred \$28 million of non-deductible transaction costs for each of the years ended December 31, 2011 and 2010, which were included in discontinued operations.

National Security Technologies Deconsolidation

Effective January 1, 2011, the company reduced its participation in the National Security Technologies joint venture (NSTec). As a result of the reduced participation in the joint venture, the company no longer consolidates NSTec's results in the consolidated financial statements. NSTec's sales that were included in the company's total sales for the year ended December 31, 2010, were \$579 million.

Discontinued Operations

Earnings for the former shipbuilding business and an adjustment to the gain from a previous divestiture, are reported as discontinued operations, as presented in the following table:

	Year Ended De	Year Ended December 31		
\$ in millions	2011	2010		
Sales	\$1,646	\$6,711		
Earnings from discontinued operations	59	229		
Income tax expense	(28)	(95)		
Earnings, net of tax	31	134		
Gain on divestiture, net of income tax expense of \$1 in 2011 and a benefit of \$5 in 2010	1	15		
Earnings from discontinued operations, net of tax	\$ 32	\$ 149		

Tax rates on discontinued operations vary from the company's effective tax rate generally due to the non-deductibility of goodwill for tax purposes and the effects, if any, of capital loss carryforwards.

There were no assets or liabilities related to these discontinued operations included in the consolidated statements of financial position as of December 31, 2012 or 2011.

4. SEGMENT INFORMATION

The company is aligned in four reportable segments: Aerospace Systems, Electronic Systems, Information Systems, and Technical Services.

The company, from time to time, acquires or disposes of businesses and realigns contracts, programs or business areas among and within its operating segments. Portfolio shaping and internal realignments are designed to more fully leverage existing capabilities and enhance development and delivery of products and services.

Segment Realignment

On January 1, 2012, the company transferred its missile business (principally the Intercontinental Ballistic Missile (ICBM) program), from Aerospace Systems to Technical Services. The segment sales and segment operating income for the years ended December 31, 2011 and 2010, have been recast to reflect the missile business transfer. Sales of \$494 million and \$474 million for the years ended December 31, 2011 and 2010, respectively, were transferred from Aerospace Systems to Technical Services. Segment operating income of \$44 million and \$43 million for the years ended December 31, 2011 and 2010, respectively, were transferred from Aerospace Systems to Technical Services.

U.S. Government Sales

Revenue from the U.S. Government (which includes Foreign Military Sales) includes revenue 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. All of the company's segments derive substantial revenue from the U.S. Government. Sales to the U.S. Government amounted to \$22.7 billion, \$23.9 billion, and \$25.5 billion, or 90.0 percent, 90.5 percent, and 90.6 percent, of total revenue for the years ended December 31, 2012, 2011, and 2010, respectively.

Foreign Sales

Direct foreign sales amounted to \$1.6 billion, or approximately 6 percent, of total revenue for each of the years ended December 31, 2012, 2011, and 2010.

Discontinued Operations

The company's discontinued operations are excluded from all of the amounts in the following tables.

Assets

Substantially all of the company's operating assets are located or maintained in the U.S.



Results of Operations By Segment

The following table presents sales and operating income by segment:

	Year	Year Ended December 31			
\$ in millions	2012	2011	2010		
Sales					
Aerospace Systems	\$ 9,977	\$ 9,964	\$10,436		
Electronic Systems	6,950	7,372	7,613		
Information Systems	7,356	7,921	8,395		
Technical Services	3,019	3,193	3,705		
Intersegment eliminations	(2,084)	(2,038)	(2,006)		
Total sales	25,218	26,412	28,143		
Operating income					
Aerospace Systems	1,218	1,217	1,213		
Electronic Systems	1,187	1,070	1,023		
Information Systems	761	766	756		
Technical Services	268	260	249		
Intersegment eliminations	(258)	(258)	(231)		
Total segment operating income	3,176	3,055	3,010		
Reconciliation to operating income:					
Unallocated corporate expenses	(168)	(166)	(182)		
Net FAS/CAS pension adjustment	132	400	10		
Other	(10)	(13)	(11)		
Total operating income	\$ 3,130	\$ 3,276	\$ 2,827		

Unallocated Corporate Expenses

Unallocated corporate expenses include the portion of corporate expenses not considered allowable or allocable under applicable U.S. government Cost Accounting Standards (CAS) regulations and the Federal Acquisition Regulation, and therefore not allocated to the segments. Such costs consist of a portion of management and administration, legal, environmental, compensation costs, retiree benefits, as well as certain unallowable costs such as for lobbying activities, among others.

Net FAS/CAS Pension Adjustment

The net FAS (GAAP Financial Accounting Standards)/CAS pension adjustment is the difference between pension expense determined in accordance with GAAP and pension expense allocated to the operating segments determined in accordance with CAS. For the years ended December 31, 2012, 2011, and 2010, the net FAS/CAS pension adjustment resulted in income of \$132 million, \$400 million, and \$10 million, respectively. The decrease in the 2012 net FAS/CAS pension adjustment is primarily due to increased GAAP pension expense resulting from amortization of prior year actuarial losses and reduced CAS pension expense resulting from a plan amendment in 2011.

Intersegment Sales and Margin

Sales between segments are recorded at values that include a hypothetical margin for the performing segment based on that segment's estimated margin rate for external sales. Such hypothetical margins are eliminated in consolidation. Intersegment sales and operating income before eliminations were as follows:

			Year Ended 1	December 31		
\$ in millions		2012	2	2011	2	010
		Operating		Operating		Operating
	Sales	Income	Sales	Income	Sales	Income
Intersegment sales and operating income						
Aerospace Systems	\$ 171	\$ 20	\$ 134	\$ 18	\$ 133	\$ 13
Electronic Systems	607	110	649	131	684	118
Information Systems	682	78	687	68	623	61
Technical Services	624	50	568	41	566	39
Total	\$2,084	\$258	\$2,038	\$258	\$2,006	\$231

Other Financial Information

	Decemb	December 31		
\$ in millions	2012	2011		
Assets				
Aerospace Systems	\$ 6,657	\$ 6,525		
Electronic Systems	4,551	4,705		
Information Systems	6,940	7,144		
Technical Services	1,313	1,352		
Segment assets	19,461	19,726		
Corporate	7,082	5,685		
Total assets	\$26,543	\$25,411		

Corporate assets principally consist of cash and cash equivalents and deferred tax assets.

	Capital Expenditures Depreciation and A			ation and Amortiz	nortization	
\$ in millions	2012	2011	2010	2012	2011	2010
Aerospace Systems	\$154	\$184	\$195	\$196	\$200	\$237
Electronic Systems	84	121	176	139	144	150
Information Systems	40	45	37	100	121	133
Technical Services	3	1	5	4	4	5
Corporate	50	141	172	71	75	30
Total from continuing operations	\$331	\$492	\$585	\$510	\$544	\$555

The depreciation and amortization expense above includes amortization of purchased intangible assets, as well as amortization of deferred and other outsourcing costs.

5. 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. Progress payments are received on a number of fixed-priced contracts. Unbilled amounts are presented net of progress payments of \$5.0 billion and \$6.4 billion at December 31, 2012, and 2011, respectively.

Substantially all accounts receivable at December 31, 2012, are expected to be collected in 2013.

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.

Accounts receivable consisted of the following:

	Decemb	er 31
\$ in millions	2012	2011
Due on U.S. Government contracts		
Amounts billed	\$ 794	\$ 812
Recoverable costs and accrued profit on progress completed - unbilled	1,396	1,594
	2,190	2,406
Due on non-U.S. Government contracts		
Amounts billed	314	249
Recoverable costs and accrued profit on progress completed - unbilled	414	363
	728	612
Total accounts receivable	2,918	3,018
Allowance for doubtful accounts	(60)	(54)
Total accounts receivable, net	\$2,858	\$2,964

6. INVENTORIED COSTS, NET

Inventoried costs consisted of the following:

	Decemb	er 31
\$ in millions	2012	2011
Production costs of contracts in process	\$1,593	\$1,629
General and administrative expenses	262	221
	1,855	1,850
Progress payments received	(1,167)	(1,100)
	688	750
Product inventory	110	123
Total inventoried costs, net	\$ 798	\$ 873

7. INCOME TAXES

The company's effective tax rate on earnings from continuing operations for the year ended December 31, 2012, was 33.3 percent, as compared with 32.3 percent and 19.5 percent for the years ended December 31, 2011 and 2010, respectively. The company's higher effective tax rate for 2012, as compared to 2011, reflects the absence of research tax credits, which expired at the end of 2011. The company's higher effective tax rate for 2011, as compared to 2010, was primarily due to recognized net tax benefits of \$298 million in 2010 to reflect the final approval from the IRS and the U.S. Congressional Joint Committee on Taxation of the IRS' examination of our tax returns for the years 2004 through 2006.

Federal and foreign income tax expense consisted of the following:

	Year	Year Ended December 31		
<i>\$ in millions</i>	2012	2011	2010	
Income Taxes on Continuing Operations				
Currently payable				
Federal income taxes	\$912	\$592	\$394	
Foreign income taxes	15	18	11	
Total federal and foreign income taxes currently payable	927	610	405	
Change in deferred federal and foreign income taxes	60	387	57	
Total federal and foreign income taxes	\$987	\$997	\$462	

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

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

	Year H	Year Ended December 31			
\$ in millions	2012	2011	2010		
Income tax expense on continuing operations at statutory rate	\$1,038	\$1,079	\$ 828		
Manufacturing deduction	(42)	(32)	(33)		
Research tax credit	—	(17)	(12)		
Tax settlements and adjustments to uncertain tax position accruals	—	—	(298)		
Other, net	(9)	(33)	(23)		
Total federal and foreign income taxes	\$ 987	\$ 997	\$ 462		

Uncertain Tax Positions

The company files income tax returns in the U.S. federal jurisdiction, and in various state and foreign jurisdictions. The IRS is currently conducting an examination of the company's tax returns for the years 2007 through 2011. Open tax years related to state and foreign jurisdictions remain subject to examination, but are not considered material.

Although the company believes that it has adequately provided for all of its tax positions, amounts asserted by taxing authorities in future years could be greater than the company's accrued positions. Accordingly, additional provisions on income tax related matters could be recorded in the future due to revised estimates, settlement or other resolution of the underlying tax matters.

The change in unrecognized tax benefits during 2012, 2011, and 2010, excluding interest, is as follows:

		December 31			
\$ in millions	2012	2011	2010		
Unrecognized tax benefits at beginning of the year	\$118	\$126	\$429		
Additions based on tax positions related to the current year	12	11	19		
Additions for tax positions of prior years	28	31	4		
Reductions for tax positions of prior years	(1)	(22)			
Settlements	(1)	(28)	(326)		
Net change in unrecognized tax benefits	38	(8)	(303)		
Unrecognized tax benefits at end of the year	\$156	\$118	\$126		

These liabilities, along with \$19 million of accrued interest and penalties, are included in other non-current liabilities in the consolidated statements of financial position. If the income tax benefits from these tax positions are ultimately realized, \$128 million of federal and foreign benefits would affect the company's effective tax rate.

During the years ended December 31, 2012, 2011, and 2010, the company recorded approximately (\$1) million, (\$5) million, and \$88 million of net interest (expense)/income, respectively, within its federal, foreign and state income tax provisions.

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. Such amounts are classified in the consolidated statements of financial position as current or non-current assets or liabilities based upon the classification of the related assets and liabilities.



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:

	Decemb	er 31	
\$ in millions	2012	2011	
Deferred Tax Assets			
Retirement benefits	\$2,710	\$1,819	
Provisions for accrued liabilities	675	649	
Stock-based compensation	146	130	
Other	151	147	
Gross deferred tax assets	3,682	2,745	
Less valuation allowance	(52)	(50)	
Net deferred tax assets	3,630	2,695	
Deferred Tax Liabilities			
Goodwill	804	716	
Property, plant, and equipment, net	376	277	
Contract accounting differences	199	218	
Other	135	88	
Gross deferred tax liabilities	1,514	1,299	
Total net deferred tax assets	\$2,116	\$1,396	

Realization of the deferred tax asset is primarily dependent on generating sufficient taxable income in future periods. The company believes it is more-likelythan-not that all deferred tax assets will be realized, net of any valuation allowances currently established.

At December 31, 2012, the company has available unused net operating losses of \$185 million that may be applied against future taxable income, primarily in the United Kingdom that may be used indefinitely. A valuation allowance of \$52 million has been recorded against the 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, 2012, the company has accumulated undistributed earnings generated by its foreign subsidiaries. No deferred tax liability has been recorded on these earnings since the company intends to permanently reinvest these earnings. Should these earnings be distributed in the form of dividends or otherwise, the distributions would be subject to U.S. federal income tax at the statutory rate of 35 percent, less foreign tax credits available to offset such distributions, if any. In addition, such distributions may be subject to withholding taxes in the various tax jurisdictions.

8. 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. Impairment tests are performed at least annually and more often as circumstances require. Any goodwill impairment, as well as the amortization of other purchased intangible assets, is charged against the respective segment's operating income. Our annual impairment test was performed as of November 30, 2012, for all segments. In performing the goodwill impairment tests, the company uses a discounted cash flow approach corroborated by comparative market multiples, where appropriate, to determine the fair value of its businesses. Adverse changes in political and economic conditions, such as the potential for sequestration and/or actions on the national debt ceiling by the U.S. Government, or changes in other factors affecting the impairment analysis, such as discount rates, could result in an impairment of our goodwill in the future. Information Systems is the segment most sensitive to future impairment. Accumulated goodwill impairment losses at December 31, 2012, and 2011, totaled \$570 million at the Aerospace Systems segment.



The changes in the carrying amounts of goodwill for the years ended December 31, 2012 and 2011, were as follows:

\$ in millions	Aerospace Systems	Electronic Systems	Information Systems	Technical Services	Total
Balance as of December 31, 2010	\$3,801	\$2,402	\$5,248	\$925	\$12,376
Businesses sold	—	(2)	—		(2)
Balance as of December 31, 2011	\$3,801	\$2,400	\$5,248	\$925	\$12,374
Businesses acquired, sold and other	(43)	10	39	51	57
Balance as of December 31, 2012	\$3,758	\$2,410	\$5,287	\$976	\$12,431

Segment Realignments

On January 1, 2012, the company transferred its missile business (principally the ICBM program), from Aerospace Systems to Technical Services. In connection with this realignment, \$51 million of goodwill was transferred from Aerospace Systems to Technical Services and is reflected in the amounts above for all years presented.

Purchased Intangible Assets

As of December 31, 2012 and 2011, gross contract, program, and other intangible assets were \$1.8 billion and accumulated amortization was \$1.7 billion. Net contract, program, and other intangible assets were \$137 million, at December 31, 2012, and \$155 million at December 31, 2011.

Amortization expense for 2012, 2011, and 2010, was \$36 million, \$37 million, and \$71 million, respectively. The company's purchased intangible assets are being amortized on a straight-line basis over an aggregate weighted-average period of 17 years and are included in other non-current assets in the consolidated statements of financial position. As of December 31, 2012, the expected future amortization of purchased intangibles for each of the next five years is \$30 million in 2013, \$18 million in 2014, \$17 million in 2015, \$11 million in 2016, and \$10 million in 2017.

9. FAIR VALUE OF FINANCIAL INSTRUMENTS

The following table presents the fair value information for those assets and liabilities measured at fair value on a recurring basis:

	December 31, 2012		December 31, 2011	
\$ in millions	Carrying Value	Fair Value	Carrying Value	Fair Value
Financial Assets (Liabilities)				
Marketable Securities				
Trading	\$ 259	\$ 259	\$ 219	\$ 219
Available-for-sale	3	3	4	4
Held-to-maturity time deposits	—	—	250	250
Derivatives	(1)	(1)	7	7
Long-term debt, including current portion	(3,935)	(4,834)	(3,940)	(4,675)

There were no transfers of financial instruments between the three levels of fair value hierarchy during the years ended December 31, 2012 and 2011.

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

Investments in Marketable Securities

The company holds a portfolio of marketable securities to partially fund long-term deferred compensation programs, consisting of equity securities that are classified as either trading or available-for-sale, which can be liquidated without restriction. These assets are recorded at fair value and are valued using Level 1 inputs (quoted market prices). In addition, the company occasionally holds short-term investments classified as held-to-maturity that are recorded at cost. As of December 31, 2012, marketable securities of \$261 million were included in other non-current assets in the consolidated statements of financial position. As of December 31, 2011, marketable securities of \$250 million were included in prepaid expenses and other current assets and \$223 million 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. Foreign currency forward contracts are used to manage foreign currency exchange rate risk related to receipts from customers and payments to suppliers denominated in foreign currencies. Derivative financial instruments are recognized as assets or liabilities in the financial statements and measured at fair value, and 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 rate as the discount rate.

The notional values for the company's derivative portfolio at December 31, 2012 and 2011, were \$164 million and \$233 million, respectively. The portion of the notional values designated as cash flow hedges at December 31, 2012 and 2011, were \$110 million and \$145 million, respectively.

Unrealized gains or losses on the effective portion of cash flow hedges are reclassified from other comprehensive income to earnings from continuing operations upon the settlement of the underlying transactions. The derivative fair values and related unrealized gains/losses at December 31, 2012 and 2011, were not material. Hedge contracts not designated for hedge accounting and the ineffective portion of cash flow hedges are recorded in other income.

Long-Term Debt

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

10. LONG-TERM DEBT

Lines of Credit

The company has available uncommitted short term credit lines in the form of money market facilities with several banks. The amount and conditions for borrowing under these credit lines depend on the availability and terms prevailing in the marketplace. No fees or compensating balances are required for these credit facilities.

Credit Facility

In September 2012, the company entered into a 364-day revolving credit facility in an aggregate principal amount of \$500 million (the "2012 Credit Agreement") replacing the company's 364-day revolving credit facility entered into in September 2011 (the "2011 Credit Agreement"). The terms and conditions of the 2012 Credit Agreement are substantially the same as the terms and conditions in the 2011 Credit Agreement, which restrict 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 consolidated debt to capitalization (as set forth in the Credit Agreement) to exceed 65 percent. The company is in compliance with all covenants under the Credit Agreement. There were no borrowings under the credit facility for the year ended December 31, 2012, and no balance outstanding under the credit facility at December 31, 2012.

In September 2011, the Company entered into two senior unsecured credit facilities (the Credit Agreements) in an aggregate principal amount of \$2 billion. The first Credit Agreement amended the company's \$2 billion five-year credit facility dated August 10, 2007, by reducing the aggregate principal amount available under the facility by \$500 million to \$1.5 billion and extending the maturity date to September 2016. The second Credit Agreement is a 364-day revolving credit facility in an aggregate principal amount of \$500 million which ended in September 2012. The credit facilities permit the company to request additional lending commitments of up to \$500 million from the lenders under the agreement or through other eligible lenders under certain circumstances. Borrowings under the credit facilities bear interest at various rates, including LIBOR (or an alternate base rate), plus an incremental margin based on the company's credit ratings and credit default swap spread. The credit facilities also require a commitment fee based on the daily aggregate unused amount of commitments and the company's credit ratings, and contain a financial covenant relating to a maximum debt to capitalization ratio, and certain restrictions on additional asset liens. There were no borrowings under the credit facilities in the years ended December 31, 2012, and 2011, and no balances outstanding under the credit facilities at December 31, 2012, the company was in compliance with all covenants under these Credit Agreements.

Debt Tender Offer

In November 2010, the company made a tender offer for \$1.9 billion of debt securities issued by its subsidiary, Northrop Grumman Systems Corporation, maturing in 2016 to 2036 with interest rates ranging from 6.98 percent to 7.875 percent. Approximately \$682 million in aggregate principal amount was purchased for a total price of \$919 million (including accrued and unpaid interest on the securities). The company recorded a pre-tax charge of \$229 million principally related to the premiums paid on the debt tendered.



Long-term debt consists of the following:

		Decemb	per 31
\$ in millions		2012	2011
Fixed-rate notes and debentures, maturing in	Interest rate		
2014	3.70%	\$ 350	\$ 350
2015	1.85%	500	500
2016	7.75%	107	107
2018	6.75%	200	200
2019	5.05%	500	500
2021	3.50%	700	700
2026	7.81%	527	527
2031	7.75%	466	466
2040	5.05%	300	300
Capital leases	Various	32	37
Other	Various	253	253
Total long-term debt		3,935	3,940
Less current portion		5	5
Long-term debt, net of current portion		\$3,930	\$3,935

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.

Maturities of long-term debt as of December 31, 2012, are as follows:

\$ in millions

Year Ending December 31	
2013	\$ 5
2014	353
2015	502
2016	110
2017	3
Thereafter	2,951
Total principal payments	3,924
Unamortized premium on long-term debt, net of discount	11
Total long-term debt	\$3,935

The premium on long-term debt primarily represents non-cash fair market value adjustments resulting from acquisitions, which are amortized over the life of the related debt.

11. INVESTIGATIONS, CLAIMS AND LITIGATION

Litigation

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

December 11, 2012, the court issued a tentative decision on these claims in favor of the company and the other remaining defendants. The court has scheduled a hearing for February 28, 2013, to discuss issues on which it has invited supplemental briefing. The court has not yet set a trial date for the remaining causes of action.

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 direct costs incurred, 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. Although the ultimate outcome of this litigation, including any possible loss, cannot be predicted or estimated at this time, the company intends vigorously to pursue this matter.

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 matter, which is 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, 2012, or its annual results of operations or cash flows.

12. 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 the company's products and services in domestic 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 obtains cross-indemnification from the other members of the Business Arrangements.

At December 31, 2012, 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 expected exposure to the matters raised by the U.S. Government. Such provisions are reviewed on a quarterly basis for sufficiency based on the most recent information available. The company believes that it has adequately reserved for any disputed amounts and that the outcome of any such matters would not have a material adverse effect on its consolidated financial position as of December 31, 2012, or its annual results of operations or cash flows.

Environmental Matters

The company has been named a Potentially Responsible Party by the Environmental Protection Agency or similarly designated state or local agencies at certain current or former owned or leased sites. The estimated costs to complete remediation has been accrued where the company believes, based on the facts and circumstances known to the company, that it is probable that the company will incur costs to address environmental impacts. As of December 31, 2012, management estimates that the range of reasonably possible future costs for environmental remediation is



between \$314 million and \$746 million, before considering the amount recoverable through overhead charges on U.S. Government contracts. At December 31, 2012, the amount accrued for probable environmental remediation costs was \$342 million, of which \$88 million is accrued in other current liabilities and \$254 million is accrued in other non-current liabilities. A portion of the environmental remediation costs is expected to be recoverable through overhead charges on government contracts and, accordingly, such amounts are deferred in inventoried costs and other non-current assets. As of December 31, 2012, \$57 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 projects progress will materially affect the estimated liability accrued, management does not anticipate that future remediation expenditures will have a material adverse effect on the company's consolidated financial position as of December 31, 2012, or its annual results of operations 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, 2012, there were \$193 million of stand-by letters of credit, \$295 million of bank guarantees, and \$168 million of surety bonds outstanding.

Indemnifications

The company has retained certain warranty, 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, 2012, or its annual results of operations or cash flows.

Operating Leases

Rental expense for operating leases, excluding discontinued operations, was \$347 million in 2012, \$420 million in 2011, and \$448 million in 2010. 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, 2012, are payable as follows:

\$ in millions

Year Ending December 31	
2013	\$ 274
2014	237
2015	198
2016	157
2017	76
Thereafter	129
Total Minimum Lease Payments	\$1,071

13. 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 the policy of the company 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 bargaining unit employees. Company contributions for most plans are based on a cash matching of employee contributions up to 4 percent of compensation. The company also participates in a multiemployer plan for certain of the company's union employees. 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, 2012, 2011, and 2010, were \$293 million, \$297 million, and \$288 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 contributory plans upon retirement from active service if they meet specified age and years of service requirements. Qualifying dependents are also eligible for medical coverage. Approximately 55 percent of the company's current retirees participate in the medical plans. The company reserves the right to amend or terminate the plans at any time. In November 2006, the company adopted plan amendments and communicated to plan participants that it would cap the amount of its contributions to substantially all of its remaining post retirement medical and life benefit plans that were previously not subject to limits on the company's contributions.

In addition to a company and employee cost-sharing feature, the plans also have provisions for deductibles, co-payments, coinsurance percentages, out-ofpocket limits, conformance to a schedule of reasonable fees, the use of managed care providers, and coordination of benefits with other plans. The plans also provide for a Medicare carve-out. Subsequent to January 1, 2005 (or earlier at some segments), newly hired employees are not eligible for post retirement medical and life benefits.

Summary Plan Results

The cost to the company of its retirement benefit plans in each of the three years ended December 31 is shown in the following table:

		Year Ended December 31				
	P	ension Benefits			Medical and Life Benefits	
\$ in millions	2012	2011	2010	2012	2011	2010
Components of net periodic benefit cost						
Service cost	\$ 522	\$ 520	\$ 531	\$ 34	\$ 32	\$ 34
Interest cost	1,184	1,223	1,212	109	114	117
Expected return on plan assets	(1,708)	(1,690)	(1,517)	(68)	(62)	(56)
Amortization of:						
Prior service cost (credit)	(58)	23	35	(51)	(51)	(51)
Net loss from previous years	427	162	206	21	17	18
Other	7	—	_		(6)	
Net periodic benefit cost	\$ 374	\$ 238	\$ 467	\$ 45	\$ 44	\$ 62



The table below summarizes the components of changes in unamortized benefit plan costs for the years ended December 31, 2012, 2011, and 2010:

	Pension	Medical and	
\$ in millions	Benefits	Life Benefits	Total
Changes in unamortized benefit plan costs			
Change in net actuarial loss	(\$ 158)	(\$ 64)	(\$ 222)
Amortization of:			
Prior service (cost) credit	(48)	60	12
Net loss from previous years	(244)	(26)	(270)
Tax expense related to above items	171	12	183
Change in unamortized benefit plan costs – 2010	(\$ 279)	(\$ 18)	(\$ 297)
Change in net actuarial loss	\$2,687	\$138	\$2,825
Change in prior service cost	(608)	6	(602)
Amortization of:			
Prior service (cost) credit	(23)	51	28
Net loss from previous years	(162)	(17)	(179)
Tax benefit related to above items	(752)	(71)	(823)
Change in unamortized benefit plan costs – 2011	\$1,142	\$107	\$1,249
Change in net actuarial loss	\$2,353	\$151	\$2,504
Change in prior service cost	(2)	—	(2)
Amortization of:			
Prior service credit	58	51	109
Net loss from previous years	(427)	(21)	(448)
Tax benefit related to above items	(788)	(72)	(860)
Change in unamortized benefit plan costs – 2012	\$1,194	\$109	\$1,303

Unamortized benefit plan costs consist primarily of accumulated actuarial losses totaling \$5.1 billion and \$3.9 billion, both after tax, as of December 31, 2012 and 2011, respectively. The change in net actuarial loss from pension benefits in 2012 was primarily due to the reduction in the discount rate assumption to 4.12 percent at December 31, 2012, from 5.03 percent at December 31, 2011, partially offset by higher than expected return on plan assets in 2012.

In December 2011, the company adopted certain changes in its defined benefit pension plans designed to enable the company to remain competitive within its marketplace and provide the affordability its customers require. These changes represent modifications to the defined benefits available to employees hired prior to July 1, 2008 who retire beginning after December 31, 2012. As a result of these changes, the company recognized a reduction of approximately \$640 million in its projected benefit obligations for the affected employee groups as of December 31, 2011. Due to these changes, certain nonqualified benefit plans experienced curtailments, however the net impact of these curtailment events was not material.

		Pension Benefits		Medical and Life Benefits	
\$ in millions	2012	2011	2012	2011	
Amounts recorded in accumulated other comprehensive loss					
Net actuarial loss	(\$8,057)	(\$6,131)	(\$461)	(\$331)	
Prior service credit	481	537	98	149	
Income tax benefits related to above items	3,003	2,215	146	74	
Unamortized benefit plan costs	(\$4,573)	(\$3,379)	(\$217)	(\$108)	

The following tables set forth the funded status and amounts recognized in the consolidated statements of financial position for the company's defined benefit pension and retiree health care and life insurance benefit plans. Pension benefits data includes the qualified plans as well as 11 domestic unfunded non-qualified plans for benefits provided to directors, officers, and certain employees. The company uses a December 31 measurement date for all of its plans.

	Pension E	Pension Benefits		Medical and Life Benefits	
in millions	2012	2011	2012	2011	
Change in projected benefit obligation					
Projected benefit obligation at beginning of year	\$24,129	\$21,820	\$2,235	\$2,104	
Service cost	522	520	34	32	
Interest cost	1,184	1,223	109	114	
Plan participants' contributions	12	14	81	82	
Plan amendments	(1)	(608)		6	
Actuarial loss	3,114	2,379	202	107	
Benefits paid	(1,220)	(1,197)	(227)	(224)	
Other	6	(22)	14	14	
Projected benefit obligation at end of year	\$27,746	\$24,129	\$2,448	\$2,235	

			Medical	and
	Pension Benefits		Life Benefits	
\$ in millions	2012	2011	2012	2011
Change in plan assets				
Fair value of plan assets at beginning of year	\$21,340	\$20,081	\$ 946	\$ 932
Gain on plan assets	2,463	1,342	119	31
Employer contributions	366	1,084	129	111
Plan participants' contributions	12	14	81	82
Benefits paid	(1,220)	(1,197)	(227)	(224)
Other	1	16	14	14
Fair value of plan assets at end of year	22,962	21,340	1,062	946
Funded status	(\$ 4,784)	(\$ 2,789)	(\$1,386)	(\$1,289)
Amounts recognized in the Consolidated Statements of Financial Position				
Non-current assets	\$ 7	\$ 112	\$ 49	\$ 41
Current liability	(111)	(104)	(30)	(48)
Non-current liability	(4,680)	(2,797)	(1,405)	(1,282)

The following table shows those amounts expected to be recognized in net periodic benefit cost in 2013:

\$ in millions	Pension Benefits	Medical and Life Benefits
Amounts expected to be recognized in 2013 net periodic benefit cost		
Net actuarial loss	\$608	\$30
Prior service credit	(58)	(51)

The accumulated benefit obligation for all defined benefit pension plans was \$27.2 billion and \$23.6 billion at December 31, 2012 and 2011, respectively.

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

Projected benefit obligation\$ 27,645\$ 2Accumulated benefit obligation27,1462		Dece	December 31	
Accumulated benefit obligation 27,146 2	\$ in millions	2012	2011	
6	Projected benefit obligation	\$ 27,645	\$ 22,451	
	Accumulated benefit obligation	27,146	21,949	
Fair value of plan assets22,85319	Fair value of plan assets	22,853	19,550	

Plan Assumptions

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

			Medical and		
	Pension Be	Pension Benefits		Life Benefits	
	2012	2011	2012	2011	
Assumptions used to determine benefit obligation at December 31					
Discount rate	4.12%	5.03%	4.02%	5.02%	
Rate of compensation increase	2.75%	2.75%			
Initial health care cost trend rate assumed for the next year			7.00%	7.50%	
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)			5.00%	5.00%	
Year that the rate reaches the ultimate trend rate			2017	2017	
Assumptions used to determine benefit cost for the year ended December 31					
Discount rate	5.03%	5.75%	5.02%	5.62%	
Expected long-term return on plan assets	8.25%	8.50%	7.44%	6.86%	
Rate of compensation increase	2.75%	3.50%			
Initial health care cost trend rate assumed for the next year			7.50%	8.00%	
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)			5.00%	5.00%	
Year that the rate reaches the ultimate trend rate			2017	2017	

The discount rate is generally based on the yield on high-quality corporate fixed-income investments. At the end of each year, the discount rate is primarily determined using a portfolio of high-quality bonds matching the notional cash inflows with the expected benefit payments for each significant benefit plan.

Through consultation with investment advisors, expected long-term returns for each of the plans's trategic asset classes were developed. Several factors were considered, including survey of investment managers' expectations, current market data such as yields/price-earnings ratios, and historical market returns over long periods. Using policy target allocation percentages and the asset class expected returns, a weighted-average expected return was calculated.

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

A one-percentage-point change in the initial through the ultimate health care cost trend rates would have the following effects:

\$ in millions	1-Percentage- Point Decrease	1-Percentage- Point Increase
Increase (decrease) from change in health care cost trend rates to		
Post-retirement benefit expense	(\$	5) \$5
Post-retirement benefit liability	(8	8) 73

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. 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.

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

For the majority of the plans' assets, the investment policies require that the asset allocation be maintained within the following ranges as of December 31, 2012:

	Asset Allocation Ranges
Domestic equities	10% - 30%
International equities	5% - 25%
Fixed income securities	30% - 50%
Alternative investments	15% - 30%

The table below provides the fair values of the company's pension and VEBA trust plan assets at December 31, 2012, and 2011, 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 that are valued using model based pricing services.

	Leve	el 1	Lev	vel 2	Lev	vel 3	Тс	otal
\$ in millions	2012	2011	2012	2011	2012	2011	2012	2011
Asset category								
Domestic equities	\$3,657	\$3,849	\$ 318	\$ 1	\$ 2	\$ 2	\$ 3,977	\$ 3,852
International equities	1,700	1,266	2,319	1,716			4,019	2,982
Fixed income securities								
Cash and cash equivalents ⁽¹⁾	92	75	1,748	1,528			1,840	1,603
U.S. Treasuries			1,780	1,872			1,780	1,872
U.S. Government Agency			968	965			968	965
Non-U.S. Government			401	324			401	324
Corporate debt			4,123	3,686			4,123	3,686
Asset backed			528	525	4	4	532	529
High yield debt			1,139	977	28	41	1,167	1,018
Bank loans			223	150			223	150
Alternative Investments								
Hedge funds					758	1,405	758	1,405
Private equities					1,980	2,098	1,980	2,098
Real estate					2,256	1,788	2,256	1,788
Other	(5)		5	14			_	14
Fair value of plan assets at the end of the								
year	\$5,444	\$5,190	\$13,552	\$ 11,758	\$ 5,028	\$5,338	\$ 24,024	\$ 22,286

(1) Cash and cash equivalents are predominantly held in money market funds.

The changes in the fair value of the pension and VEBA plan trust assets measured using Level 3 significant unobservable inputs during 2012 and 2011, are as follows:

\$ in millions	Domestic equities	Asset Backed	High yield debt	Hedge funds	Private equities	Real Estate	Total
Balance as of December 31, 2010	\$2	\$4	\$78	\$1,521	\$1,945	\$1,402	\$4,952
Actual return on plan assets:							
Unrealized gains (losses), net	—		(2)	(43)	19	198	172
Realized gains (losses), net	_			25	(13)	(4)	8
Purchases	_		10	413	503	460	1,386
Sales	_		(45)	(511)	(356)	(268)	(1,180)
Balance as of December 31, 2011	\$2	\$4	\$41	\$1,405	\$2,098	\$1,788	\$5,338
Actual return on plan assets:							
Unrealized gains (losses), net	5		10	13	(122)	68	(26)
Realized gains (losses), net	(5)			47			42
Purchases					259	846	1,105
Sales		_	(23)	(707)	(255)	(446)	(1,431)
Balance as of December 31, 2012	\$2	\$4	\$28	\$758	\$1,980	\$2,256	\$5,028

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. Domestic 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 5 percent of each trust account, and to exclude the purchase of securities issued by the company. The number of real estate and private equity partnerships is 164 and the unfunded commitments are \$810 million and \$882 million as of December 31, 2012, and 2011, respectively. For alternative investments that cannot be redeemed, such as limited partnerships, 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, 2012, and 2011, the defined benefit pension and VEBA trusts did not hold any Northrop Grumman common stock.

Benefit Payments

The following table reflects estimated future benefit payments, based upon the same assumptions used to measure the benefit obligation, and includes expected future employee service, as of December 31, 2012:

\$ in millions	Pension Plans	Medical and Life Plans
Year Ending December 31		
2013	\$1,291	\$147
2014	1,347	153
2015	1,402	157
2016	1,454	160
2017	1,507	162
2018 through 2022	8,410	829

In 2013, the company expects to contribute the required minimum funding level of approximately \$66 million to its pension plans and approximately \$110 million to its other post-retirement benefit plans. The company also expects

to make additional voluntary pension contributions of approximately \$500 million in 2013. During the years ended December 31, 2012 and 2011, the company made voluntary pension contributions of \$300 million and \$1 billion, respectively.

14. STOCK COMPENSATION PLANS AND OTHER COMPENSATION ARRANGEMENTS

Stock Compensation Plans

At December 31, 2012, 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) and 1995 Stock Plan for Non-Employee Directors (1995 SPND) as amended. All of these plans were approved by the company's shareholders. The company has historically issued new shares to satisfy award grants.

Employee Plans – On May 18, 2011, the shareholders of the company approved the company's new 2011 Plan, which replaced the expired 2001 Plan. The 2011 Plan permit grants to key employees of three general types of stock incentive awards: stock options, stock appreciation rights (SARs), and stock awards. Each stock option grant is made with an exercise price either at the closing price of the stock on the date of grant (market options) or at a premium over the closing price of the stock on the date of grant (premium options). Outstanding stock options granted prior to 2008 generally vest in 25 percent increments over four years from the grant date, and grants outstanding expire ten years after the grant date. No SARs have been granted under either plan. Stock awards, in the form of restricted performance stock rights and restricted stock rights, 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 any of the types of awards mentioned above. The 2011 Plan authorized 39.1 million new shares plus 6.9 million shares from the 2001 LTISP that were previously authorized and available to be issued at the date the 2001 Plan expired. Under the terms of the 2011 Plan, in the event that outstanding awards under the 2001 Plan expire or terminate without being exercised or paid, as the case may be, such shares (the "Forfeited Shares") will become available for award under the 2011 Plan.

Recipients of restricted performance stock rights earn shares of stock, based on financial metrics determined by the board of directors in accordance with the plan. For grants prior to 2010, if the objectives have not been met at the end of the applicable performance period, up to 100 percent of the original grant for members of the Corporate Policy Council (consisting of the CEO and certain other leadership positions) and up to 70 percent of the original grant for all other recipients will be forfeited. For grants in 2010 and after, all recipients could forfeit up to 100 percent of the original grant, and all recipients could earn up to 200 percent of the original grant. Restricted performance stock rights and restricted stock rights issued under either plan generally vest after three or four years. Termination of employment can result in forfeiture of some or all of the benefits extended. Shares issued under the 2011 Plan other than for stock options, stock appreciation rights and the Forfeited Shares will be counted against the 2011 Plan's aggregate share limit as 4.5 shares for every one share actually issued in connection with the award; any shares issued for stock options, stock appreciation rights and the Forfeited Shares will be counted against the remaining shares on a one for one basis.

As of December 31, 2012, 37 million shares are available for grant under the 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 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). 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 accumulated 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 LTISP, 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 which sets forth the terms and conditions for the awards of stock units as described above.

The 1995 SPND provided for an annual grant of nonqualified stock options to each non-employee director. Since June 2005, no new grants have been issued under that 1995 SPND. Each grant of stock options under the 1995 SPND was made at the closing market price on the date of the grant and expires ten years from the date of grant. As of December 31, 2012, only three non-employee directors held unexercised options.

Compensation Expense

Stock-based compensation expense and the related tax benefits for the years ended December 31, 2012, 2011, and 2010, were as follows:

	Year	Year Ended December 31			
\$ in millions	2012	2011	2010		
Stock-based compensation expense:					
Stock options	\$ 10	\$ 14	\$ 27		
Stock awards	173	125	107		
Total stock-based compensation expense	183	139	134		
Tax benefits from the exercise of stock options	26	18	17		
Tax benefits from the issuance of stock awards	19	37	36		
Tax benefits recognized for stock-based compensation	\$ 45	\$55	\$ 53		

At December 31, 2012, there was \$114 million of unrecognized compensation expense related to unvested awards granted under the company's stock-based compensation plans, of which \$5 million relates to stock options and \$109 million relates to stock awards. 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 2012. Stock option activity for the year ended December 31, 2012, was as follows:

	Shares under Option (in thousands)	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term	Aggregate Intrinsic Value (\$ in millions)
Outstanding at January 1, 2012	11,744	\$53	3.4 years	\$93
Granted	—	—		
Exercised	(5,404)	47		
Cancelled and forfeited	(69)	61		
Outstanding at December 31, 2012	6,271	58	2.9 years	66
Vested and expected to vest in the future at December 31, 2012	6,257	58	2.9 years	66
Exercisable at December 31, 2012	4,874	\$58	2.5 years	\$53

The total intrinsic value of options exercised during the years ended December 31, 2012, 2011, and 2010, was \$97 million, \$46 million, and \$42 million, respectively. Intrinsic value is measured using the fair market value at the date of exercise (for options exercised) or at December 31, 2012 (for outstanding options), 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 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, 2012, 2011, and 2010, is presented in the table below. Vested awards include stock awards fully vested during the year and net 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, 2010	3,658	\$58	1.6
Granted	2,317	60	
Vested	(1,319)	79	
Forfeited	(356)	56	
Outstanding at December 31, 2010	4,300	\$53	1.5
Granted	1,748	63	
Vested	(1,824)	42	
Forfeited	(350)	50	
Shipbuilding spin-off adjustments	(252)	\$47	
Outstanding at December 31, 2011	3,622	\$58	1.6
Granted	1,860	60	
Vested	(1,800)	55	
Forfeited	(204)	59	
Outstanding at December 31, 2012	3,478	\$61	1.6

The company issued 2.8 million, 1.4 million, and 1.3 million shares to employees in settlement of prior year stock awards that were fully vested, which had total fair values at issuance of \$172 million, \$87 million, and \$76 million and grant date fair values of \$75 million, \$101 million, and \$91 million during the years ended December 31, 2012, 2011, and 2010, respectively. The differences between the fair values at issuance and the grant date fair values reflect the effects of the performance adjustments and changes in the fair market value of the company's common stock.

On February 15, 2012, the company granted certain employees 0.5 million restricted stock rights (RSRs) and 1.2 million restricted performance stocks rights (RPSRs) under the company's long-term incentive stock plan, with a grant date aggregate fair value of \$102 million. The RSRs will vest on the third anniversary of the grant date, while the RPSRs will vest and pay out based on the achievement of financial metrics for the three-year period ending December 31, 2014.

In 2013, the company expects to issue to employees 3.4 million shares of common stock from the 2010 stock award grant that vested as of December 31, 2012, with a grant date fair value of \$96 million. 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

On February 15, 2012, the company granted certain employees 0.6 million cash units (CUs) and 1.3 million cash performance units (CPUs) with a minimum aggregate payout amount of \$34 million and a maximum aggregate payout amount of \$190 million. The CUs will vest and settle in cash on the third anniversary of the grant date, while the CPUs will vest and pay out based on the achievement of financial metrics for the three-year period ending December 31, 2014. At December 31, 2012, there was \$125 million of unrecognized compensation expense related to cash awards.

15. 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, which requires the businesses to close their books on a Friday, in order to normalize the potentially disruptive effects of quarterly close on business processes. The effects of this practice only exist within a reporting year.

2012

2011

In millions, except per share amounts	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Sales	\$6,198	\$6,274	\$6,270	\$6,476
Operating income	796	774	736	824
Net earnings	506	480	459	533
Basic earnings per share	2.00	1.91	1.86	2.19
Diluted earnings per share	1.96	1.88	1.82	2.14
Weighted-average common shares outstanding	253.1	250.8	247.2	243.4
Weighted-average diluted shares outstanding	258.0	254.7	252.1	248.9

Significant 2012 Fourth Quarter Events - In the fourth quarter of 2012, the company repurchased 7.3 million shares of common stock for \$487 million.

2011				
In millions, except per share amounts	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Sales	\$6,734	\$6,560	\$6,612	\$6,506
Operating income	811	841	825	799
Net earnings	530	520	520	548
Basic earnings per share	1.82	1.84	1.89	2.12
Diluted earnings per share	1.79	1.81	1.86	2.09
Weighted-average common shares outstanding	291.8	282.6	274.9	258.2
Weighted-average diluted shares outstanding	296.9	287.2	279.3	262.7

In the first quarter of 2011, net earnings included \$34 million from discontinued operations, and earnings per share included \$0.12 from discontinued operations. In the fourth quarter of 2011, net earnings included a \$2 million loss from discontinued operations, and basic earnings per share included a \$0.01 reduction due to discontinued operations.

Significant 2011 Fourth Quarter Events – In the fourth quarter of 2011, the company made a \$500 million contribution to the company's pension plans. Additionally, the company repurchased 11.8 million shares of common stock for \$649 million.

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, 2012, 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 fourth quarter of 2012, no change occurred in the company's internal control over financial reporting that materially affected, or is likely to materially affect, the company's internal control 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 was 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 was based on criteria established in *Internal Control—Integrated Framework* 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 any deficiencies as they are identified. Based on its assessment, management has concluded that the company's internal control over financial reporting is effective as of December 31, 2012.

Deloitte & Touche LLP issued an attestation report dated February 4, 2013, 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, 2012, 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/ James F. Palmer

Corporate Vice President and Chief Financial Officer

February 4, 2013



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, 2012, based on criteria established in *Internal Control — Integrated Framework* 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, 2012, based on the criteria established in *Internal Control – Integrated Framework* 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, 2012 of the Company and our report dated February 4, 2013 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP McLean, Virginia February 4, 2013

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 2013 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

EXECUTIVE OFFICERS

Our executive officers as of February 4, 2013, are listed below, along with their ages on that date, positions and offices with the company, and principal occupations and employment during the past five years.

Name	Age	Office Held	Since	Prior Business Experience (Last Five Years)
Wesley G. Bush	51	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)
M. Sidney Ashworth	61	Corporate Vice President, Government Relations	2010	Vice President of Washington Operations, GE Aviation (2010); Prior to March 2010, Principal, the Ashworth Group (2009-2010); Professional Staff Member, U.S. Senate Committee on Appropriations (1995-2009)
Kenneth L. Bedingfield	40	Corporate Vice President, Controller, and Chief Accounting Officer	2011	Partner and National Client Leader for Aerospace & Defense, KPMG LLP (2010-2011); Prior to December 2010, Partner KPMG LLP (2005-2010)
Mark A. Caylor	48	Corporate Vice President and President, Enterprise Shared Services	2013	Corporate Vice President and Treasurer (2011-2012); Assistant Treasurer (2008-2011); Director, Mergers & Acquisitions (2006-2008)
Sheila C. Cheston	54	Corporate Vice President and General Counsel	2010	Executive Vice President and Director, BAE Systems, Inc. (2009 -2010); Prior to September 2009, Senior Vice President, General Counsel, Secretary and Director, BAE Systems, Inc. (2002-2009)
Gloria A. Flach	54	Corporate Vice President and President, Electronic Systems Sector	2013	Corporate Vice President and President, Enterprise Shared Services (2010-2012); Sector Vice President and General Manager, Targeting Systems Division, Electronic Systems (ES) Sector (2010); Prior to 2010, Sector Vice President and General Manager of Engineering, Manufacturing and Logistics, ES Sector (2009); Sector Vice President and General Manager of Engineering & Logistics, ES Sector (2007-2008); Sector Vice President and Chief Information Officer, ES Sector (2004-2006)
Darryl M. Fraser	54	Corporate Vice President, Communications	2008	Sector Vice President of Business Development and Strategic Initiatives, Mission Systems Sector (2007-March 2008); Prior to May 2007, Sector Vice President, Strategic Initiatives, Mission Systems Sector (2007); Vice President, Washington Operations, Mission Systems and Space Technology Sectors (2005-2007)

Name	Age	Office Held	Since	Prior Business Experience (Last Five Years)
Christopher T. Jones	48	Corporate Vice President and President, Technical Services	2013	Vice President and General Manager, Integrated Logistics and Modernization Division, Technical Services Sector (2010-2012); Director of Product Support (2004-2010)
Linda A. Mills	63	Corporate Vice President, Operations	2013	Corporate Vice President and President, Information Systems Sector (2009-2012); Corporate Vice President and President, Information Technology Sector (2008); Prior to 2008, President of the Civilian Agencies business group, Information Technology Sector (2007-2008); Vice President for Operations and Processes, Information Technology Sector (2005-2007)
James F. Palmer	63	Corporate Vice President and Chief Financial Officer	2007	Executive Vice President and Chief Financial Officer, Visteon Corporation (2004-2007)
Denise M. Peppard	56	Corporate Vice President and Chief Human Resources Officer	2011	Vice President and Chief Human Resources, Computer Sciences Corporation (2010-2011); Senior Vice President of Human Resources, Wyeth Pharmaceuticals, Inc. (2001-2010)
David T. Perry	48	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	50	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); Prior to 2008, Vice President, Airborne Early Warning and Battle Management Command and Control – Navy Programs, Integrated Systems Sector (2006- 2007); Sector Vice President of Business Development, Integrated Systems Sector (2004-2006)
Kathy J. Warden	41	Corporate Vice President and President, Information Systems Sector	2013	Vice President and General Manager, Cyber Intelligence Division (2011-2012); Vice President, Cyber and SIGINT business unit(2008-2011); Vice President, Intelligence Systems, General Dynamics Corporation (2007-2008)

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 2013 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 web site 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.

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 Exchange Commission.

OTHER DISCLOSURES

Other disclosures required by this Item will be incorporated herein by reference to the Proxy Statement for the 2013 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 Committed Interlocks and Insider Participation and Compensation Committee Report, will be incorporated herein by reference to the Proxy Statement for the 2013 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 and Related Stockholder Matters will be incorporated herein by reference to the Proxy Statement for the 2013 Annual Meeting of Stockholders to be filed within 120 days after the end of the company's fiscal year.

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 2013 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 2013 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 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) Agreement and Plan of Merger among Titan II, Inc. (formerly Northrop Grumman Corporation), Northrop Grumman Corporation (formerly New P, Inc.) and Titan Merger Sub Inc., dated March 29, 2011 (incorporated by reference to Exhibit 10.1 to Form 8-K filed April 4, 2011)
- 2(b) 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 May 29, 2012 (incorporated by reference to Exhibit 3.2 to Form 10-Q for the quarter ended June 30, 2012, filed July 24, 2012)
- 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)
- 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) 7.125 percent Notes due 2011 and 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(1) Third Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-ininterest 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-ininterest 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) Third Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-4(q) 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) Fourth Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-4(r) 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, 2011Indenture between TRW Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and Mellon Bank, N.A., as 4(s) 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) First Supplemental Indenture between TRW Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation) and Mellon 4(t) 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) Ninth Supplemental Indenture dated as of December 31, 2009 among Northrop Grumman Space & Mission Systems Corp. 4(v) (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) Tenth Supplemental Indenture dated as of March 30, 2011, by and among Northrop Grumman Systems Corporation (successor-in-4(w) 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) Eleventh Supplemental Indenture dated as of March 30, 2011, by and among Northrop Grumman Systems Corporation (successor-4(x) 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 3.70 percent Senior Note due 2014 (incorporated by reference to Exhibit 4(b) to Form 8-K filed July 30, 2009)
4(bb)	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)
4(cc)	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(dd)	Form of Northrop Grumman Corporation's 1.850% Senior Note due 2015 (incorporated by reference to Exhibit 4(a) to Form 8-K filed November 8, 2010)
4(ee)	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(ff)	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(gg)	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(hh)	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)
10(a)	Second Amended and Restated Credit Agreement dated as of September 8, 2011, 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 Citibank, N.A., The Royal Bank of Scotland plc and Wells Fargo Bank, National Association, as Syndication Agents (incorporated by reference to Exhibit 10.1 to Form 8-K filed September 13, 2011)
10(b)	364-Day Credit Agreement dated as of September 8, 2011, among Northrop Grumman Corporation, as Borrower; Northrop Grumman Systems Corporation, as Guarantor; the Lenders party thereto; JPMorgan Chase Bank, N.A., as Administrative Agent; and Citibank, N.A., The Royal Bank of Scotland plc and Wells Fargo Bank, National Association, as Syndication Agents (incorporated by reference to Exhibit 10.2 to Form 8-K filed September 13, 2011)
10(c)	364-Day Credit Agreement dated as of September 4, 2012, among Northrop Grumman Corporation, as Borrower; Northrop Grumman Systems Corporation, as Guarantor; the Lenders party thereto; JPMorgan Chase Bank, N.A., as Administrative Agent; and Citibank, N.A., The Royal Bank of Scotland plc and Wells Fargo Bank, National Association, as Syndication Agents (incorporated by reference to Exhibit 10.1 to Form 8-K filed September 7, 2012)
10(d)	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)

- 10(e) 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(f) 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. (predecessorin-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(g) Consultant Contract dated June 28, 2010 between Ronald D. Sugar and Northrop Grumman Corporation (incorporated by reference to Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2010, filed July 29, 2010)
- +10(h) 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(i) 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(j) 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 Restricted Performance Stock Rights (incorporated by reference to Exhibit 10.2 to Form 10-Q for the quarter ended March 31, 2010, filed April 28, 2010)
 - (ix) 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)
 - (x) Form of Agreement for 2010 Restricted Stock Rights (incorporated by reference to Exhibit 10.4 to Form 10-Q for the quarter ended March 31, 2010, filed April 28, 2010)
 - (xi) 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)
 - (xii) Form of Agreement for 2011 Restricted Performance Stock Rights granted under the Northrop Grumman 2001 Long-Term Incentive Stock Plan (As amended through December 19, 2007) (incorporated by reference to Exhibit 10.2 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)
- (xvii) Terms and Conditions Applicable to Special 2011 Restricted Stock Rights granted to Gary W. Ervin under the Northrop Grumman 2001 Long-Term Incentive Stock Plan (as amended through December 19, 2007) (incorporated by reference to Exhibit 10.4 of Form 8-K filed February 22, 2011)
- +10(k) Northrop Grumman 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit A to the Company's Proxy Statement on Schedule 14A for the 2011 Annual Meeting of Shareholders filed April 8, 2011)
 - (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, effective January 1, 2012 (incorporated by reference to Exhibit 10.3 to Form 10-Q for the quarter ended June 30, 2012, filed July 24, 2012)
 - (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)
- +*10(1) Northrop Grumman Supplemental Plan 2 (Amended and Restated Effective as of January 1, 2013)
 - (i) Appendix B to the Northrop Grumman Supplemental Plan 2: ERISA Supplemental Program 2 (Amended and Restated Effective as of January 1, 2011) dated June 27, 2011 (incorporated by reference to Exhibit 10.9 to Form 10-Q for the quarter ended June 30, 2011, filed July 27, 2011)
 - (ii) Appendix F to the Northrop Grumman Supplemental Plan 2: CPC Supplemental Executive Retirement Program (Amended and Restated Effective as of January 1, 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)
- +*10(m) Northrop Grumman ERISA Supplemental Plan (Amended and Restated Effective as of January 1, 2013)
- +*10(n) Northrop Grumman Supplementary Retirement Income Plan (formerly TRW Supplementary Retirement Income Plan) (Amended and Restated Effective January 1, 2013)
- +*10(o) Northrop Grumman Electronic Systems Executive Pension Plan (Amended and Restated Effective as of January 1, 2013)
- +10(p) 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(q) Non-Employee Director Compensation Term Sheet, effective as of April 1, 2011 (replacing previously filed Exhibit 10.17 to Form 10-Q for the quarter ended June 30, 2011, filed July 27, 2011) (incorporated by reference to Exhibit 10.4 to Form 10-Q for the quarter ended September 30, 2011, filed October 26, 2011)
 - +10(r) Non-Employee Director Compensation Term Sheet, effective May 15, 2012 (incorporated by reference to Exhibit 10.2 to Form 10-Q for the quarter ended June 30, 2012, filed July 24, 2012)

- +10(s) 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(t) Northrop Grumman Deferred Compensation Plan (Amended and Restated Effective as of January 1, 2013)
- +10(u) 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(v) 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(w) Northrop Grumman Savings Excess Plan (Amended and Restated Effective as of January 1, 2013)
- +*10(x) Northrop Grumman Officers Retirement Account Contribution Plan (Amended and Restated Effective as of January 1, 2013)
- +10(y) Compensatory Arrangements of Certain Officers (incorporated by reference to Item 5.02(e) of Form 8-K filed February 17, 2012)
- +10(z) 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)
- +10(aa) 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(bb) 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(cc) 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(dd) 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(ee) 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(ff) 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(gg) 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(hh) 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(ii) Policy Regarding the Recoupment of Certain Performance-Based Compensation Payments dated March 1, 2010 (incorporated by reference to Exhibit 10.5 to Form 10-Q for the quarter ended March 31, 2010, filed April 28, 2010)
- +10(jj) Retirement and Separation Agreement dated July 23, 2012 between Northrop Grumman Systems Corporation and Gary W. Ervin (incorporated by reference to Exhibit 10.4 to Form 10-Q for the quarter ended June 30, 2012, filed July 24, 2012)
 - *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 James F. Palmer (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
 - **32.2 Certification of James F. Palmer 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, 2012, formatted in XBRL (Extensible Business Reporting Language); (i) the Consolidated Statements of Earnings and Comprehensive Income, (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

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 4th day of February 2013.

NORTHROP GRUMMAN CORPORATION

By: /s/ Kenneth L. Bedingfield Kenneth L. Bedingfield

> Corporate Vice President, Controller, and Chief Accounting Officer (Principal Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed on behalf of the registrant this the 4th day of February 2013, by the following persons and in the capacities indicated.

Signature	<u>Title</u>	
Wesley G. Bush*	Chairman, Chief Executive Officer and President (Principal Executive Officer), and Director	
James F. Palmer*	Corporate Vice President and Chief Financial Officer (Principal Financial Officer)	
Kenneth L. Bedingfield	Corporate Vice President, Controller and Chief Accounting Officer	
Victor H. Fazio*	Director	
Donald E. Felsinger*	Director	
Stephen E. Frank *	Director	
Bruce S. Gordon*	Director	
Madeleine A. Kleiner*	Director	
Karl J. Krapek*	Director	
Richard B. Myers*	Director	
Aulana L. Peters*	Director	
Gary Roughead*	Director	
Thomas M. Schoewe*	Director	
Kevin W. Sharer*	Director	
*By: /s/ Jennifer C. McGarey Jennifer C. McGarey Corporate Vice President and Secretary		

Attorney-in-Fact pursuant to a power of attorney

NORTHROP GRUMMAN

SUPPLEMENTAL PLAN 2

(Amended and Restated Effective as of January 1, 2013)

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Note: All of the following Appendices are saved as separate documents. Confidential documents may be requested from Benefits Strategy & Design.

APPENDIX A Northrop Supplemental Retirement Income Program For Senior Executives

APPENDIX B ERISA Supplemental Program 2

APPENDIX C Arthur F. Dauer Program (Confidential)

APPENDIX D Nelson Gibbs, Jr. Program (Confidential)

APPENDIX E Oliver Boileau Program (Confidential)

APPENDIX F CPC Supplemental Executive Retirement Program

APPENDIX G Officers Supplemental Executive Retirement Program

APPENDIX H Robert P. Iorizzo Program

APPENDIX I Officers Supplemental Executive Retirement Program II

The Northrop Grumman Supplemental Plan 2 (the "Plan") is hereby amended and restated effective as of January 1, 2013. This restatement amends the July 20, 2012 restatement of the Plan and includes 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.

ARTICLE I

Definitions

For purposes of the Plan, the following terms, when capitalized, will have the following meanings:

- 1.01 <u>Affiliated Companies</u>. 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.
- 1.02 <u>Board of Directors</u>. The Board of Directors of the Company.
- 1.03 <u>CIC Plans</u>. 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.
- 1.04 <u>Code</u>. The Internal Revenue Code of 1986, as amended.
- 1.05 <u>Company</u>. Northrop Grumman Corporation.
- 1.06 <u>Deferred Compensation Plan</u>. The Northrop Grumman Deferred Compensation Plan and the Northrop Grumman Savings Excess Plan.
- 1.07 <u>ERISA</u>. The Employee Retirement Income Security Act of 1974, as amended.
- 1.08 <u>Grandfathered Amounts</u>. Plan benefits that were earned and vested as of December 31, 2004 within the meaning of Code section 409A and official guidance thereunder.
- 1.09 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 Participants 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.

- 1.10 <u>Participant</u>. Any employee of the Company who is eligible for benefits under a particular Program and has not received full payment under the Program.
- 1.11 <u>Payment Date</u>. The 1st of the month coincident with or following the later of (a) the date the Participant attains age 55, or (b) the date the Participant Separates from Service.
- 1.12 Pension Plan.
 - (a) The Northrop Grumman Pension Plan (subject to the special effective dates noted below for the following merged plans)
 - The Northrop Grumman Retirement Value Plan (effective as of January 1, 2000)
 - The Northrop Grumman Commercial Aircraft Division Salaried Retirement Plan (effective as of July 1, 2000)
 - The Grumman Pension Plan (effective as of July 1, 2003)
 - (b) The Northrop Grumman Electronic Systems Space Division Consolidated Pension Plan (effective as of October 22, 2001)
 - (c) The Northrop Grumman Norden Systems Employee Retirement Plan (effective July 1, 2003)
- 1.13 <u>Plan</u>. The Northrop Grumman Supplemental Plan 2.
- 1.14 <u>Program</u>. One of the eligibility and benefit structures described in the Appendices.
- 1.15 <u>Qualified Plan</u>. The Northrop Grumman Pension Plan and Cash Balance Plans (as defined under the Northrop Grumman Pension Plan).
- 1.16 <u>Separation from Service</u> or <u>Separates from Service</u>. A "separation from service" within the meaning of Code section 409A.

- 1.17 <u>Termination of Employment</u>. Complete termination of employment with the Affiliated Companies.
 - (a) If a Participant leaves one Affiliated Company to go to work for another, he or she will not have a Termination of Employment.
 - (b) A Participant will have a Termination of Employment if he or she leaves the Affiliated Companies because the affiliate he or she works for ceases to be an Affiliated Company because it is sold or spunoff.

ARTICLE II

General Provisions

- 2.01 <u>In General</u>. The Plan contains a number of different benefit Programs which are set forth in the Appendices. The Appendices describe the eligibility conditions and the amount of benefits payable under the Programs. The Company, in its sole discretion, will determine all eligibility conditions, make all benefit determinations, and otherwise exercise sole authority to interpret the Plan and Programs.
- 2.02 <u>Treatment of 2000 Ad Hoc Increases for Retirees</u>. In no event, however, (1) will this Plan pay any amount of a Participant's retirement benefit, if any, attributable to the "2000 Ad Hoc Increase for Retirees" Appendix added to certain of the Company's tax-qualified plans pursuant to the Board of Directors resolution adopted May 17, 2000, or (2) will a Participant be entitled to a benefit (or an increased benefit) from or as a result of participation in this Plan under the Board of Directors resolution adopted May 17, 2000.
- 2.03 <u>Forms and Times of Benefit Payments</u>. This Section only applies to Grandfathered Amounts. The Company will determine the form and timing of benefit payments in its sole discretion unless particular rules regarding the form and timing of benefit payments are set forth in a Program or where a lump sum election under Article III is applicable.
 - (a) For payments made to supplement those of a particular tax-qualified retirement or savings plan, the Company will only select among the options available under that plan, using the same actuarial adjustments used in that plan, except in cases of lump sums.
 - (b) Whenever the present value of the amount payable under a particular Program does not exceed \$10,000, it will be paid in the form of a single lump sum as of the first of the month following Termination of Employment. The lump sum will be calculated using the factors and methodology described in Section 3.06 below (See Section 2.05 for the rule that applies as of January 1, 2008).
 - (c) No payments will commence under this Plan until a Participant has a Termination of Employment, even in cases where benefits have commenced under a qualified retirement plan for Participants over age 70¹/₂, or for any other reason.

See Appendix 1 and Appendix 2 for the rules that apply to other benefits earned under the Plan.

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- 2.04 <u>Beneficiaries and Spouses</u>. This Section only applies to Grandfathered Amounts. If the Company selects a form of payment which includes a survivor benefit, the Participant may make a beneficiary designation, which may be changed at any time prior to commencement of benefits. A beneficiary designation must be in writing and will be effective only when received by the Company.
 - (a) If a Participant is married on the date his or her benefits are scheduled to commence, his or her beneficiary will be his or her spouse unless some other beneficiary is named with spousal consent. Spousal consent, to be effective, must be submitted in writing before benefits commence 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.
 - (b) With respect to Programs designed to supplement tax-qualified retirement or savings plans, the Participant's spouse will be the spouse as determined under the underlying tax-qualified plan. Otherwise, the Participant's spouse will be determined by the Company in its sole discretion.

See Appendix 1 and Appendix 2 for the rules that apply to other benefits earned under the Plan.

- 2.05 <u>Mandatory Cashout</u>. Notwithstanding any other provisions in the Plan, Participants with Grandfathered Amounts who have not commenced payment of such benefits prior to January 1, 2008 will be subject to the following rules:
 - (a) <u>Post-2007 Terminations</u>. Participants who have a Termination of Employment after 2007 will receive a lump sum distribution of the present value of their Grandfathered Amounts under a Program within two months of Termination of Employment (without interest), if such present value is below the Code section 402(g) limit in effect at the Termination of Employment.
 - (b) <u>Pre-2008 Terminations</u>. Participants who had a Termination of Employment before 2008 will receive a lump sum distribution of the present value of their Grandfathered Amounts under a Program 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.

2.06 <u>Optional Payment Forms</u>. Participants with Grandfathered Amounts shall be permitted to elect (a) or (b) below:

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- (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

- 2.07 <u>Special Tax Distribution</u>. On the date a Participant's retirement benefit is reasonably ascertainable within the meaning of IRS regulations under Code section 3121(v)(2), an amount equal to the Participant'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 Participant's future benefit payments under the Plan on an actuarial basis.
- 2.08 <u>Amendment and Plan Termination</u>. 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 a Participant has already made a lump sum election. Notwithstanding the foregoing, no amendment or termination of the Plan shall reduce the amount of a Participant'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.

The Company may, in its sole discretion, seek reimbursement from the Company's tax-qualified plans to the extent this Plan pays tax-qualified plan benefits to which Participants were entitled to or became entitled to under the tax-qualified plans.

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- 2.09 <u>Not an Employment Agreement</u>. Nothing contained in this Plan gives any Participant the right to be retained in the service of the Company, nor does it interfere with the right of the Company to discharge or otherwise deal with Participants without regard to the existence of this Plan.
- 2.10 <u>Assignment of Benefits</u>. A Participant, surviving spouse or beneficiary may not, either voluntarily or involuntarily, assign, anticipate, alienate, commute, sell, transfer, pledge or encumber any benefits to which he or she is or may become entitled under the Plan, nor may Plan benefits be subject to attachment or garnishment by any of their creditors or to legal process.

Notwithstanding the foregoing, all or a portion of a Participant's benefit may be paid to another person as specified in a domestic relations order that the plan administrator 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 plan administrator.

The plan administrator shall determine whether any document received by it is a Qualified Domestic Relations Order. In making this determination, the plan administrator may consider the rules applicable to the "domestic relations orders" under Code section 414(p) and ERISA section 206(d), and such other rules and procedures as it deems relevant.

- 2.11 <u>Nonduplication of Benefits</u>. This Section applies if, despite Section 2.10, with respect to any Participant (or his or her beneficiaries), the Company is required to make payments under this Plan to a person or entity other than the payees described in the Plan. In such a case, any amounts due the Participant (or his or her beneficiaries) under this Plan will be reduced by the actuarial value of the payments required to be made to such other person or entity.
 - (a) Actuarial value will be determined using the factors and methodology described in Section 3.06 below (in the case of lump sums) and using the actuarial assumptions in the underlying Pension Plan in all other cases.

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- (b) In dividing a Participant's benefit between the Participant and another person or entity, consistent actuarial assumptions and methodologies will be used so that there is no increased actuarial cost to the Company.
- 2.12 <u>Funding</u>. Participants have the status of general unsecured creditors of the Company and the Plan constitutes a mere promise by the Company to make benefit payments in the future. The Company may, but need not, fund benefits under the Plan through a trust. If it does so, any trust created by the Company and any assets held by the trust to assist it in meeting its obligations under the Plan will conform to the terms of the model trust, as described in Internal Revenue Service Revenue Procedure 92-64, but only to the extent required by Internal Revenue Service Revenue Procedure 92-65. It is the intention of the Company and Participants that the Plan be unfunded for tax purposes and for purposes of Title I of ERISA.

Any funding of benefits under this Plan will be in the Company's sole discretion. The Company may set and amend the terms under which it will fund and may cease to fund at any time.

- 2.13 <u>Construction</u>. The Company 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 Company'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 Company 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.
- 2.14 <u>Governing Law</u>. This Plan shall be governed by the law of the Commonwealth of Virginia, except to the extent superseded by federal law.
- 2.15 <u>Actions by Company and Claims Procedures</u>. Any powers exercisable by the Company under the Plan shall be utilized by written resolution adopted by the Board of Directors or its delegate. The Board of Directors may by written resolution delegate any of the Company's powers under the Plan and any such delegations may provide for subdelegations, also by written resolution.

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

- 2.16 <u>Plan Representatives</u>. Those authorized to act as Plan representatives will be designated in writing by the Board of Directors or its delegate.
- 2.17 <u>Number</u>. The singular, where appearing in this Plan, will be deemed to include the plural, unless the context clearly indicates the contrary.



ARTICLE III

Lump Sum Election

This Article only applies with respect to Grandfathered Amounts. See Appendix 1 and Appendix 2 for the distribution rules that apply to other benefits earned under the Plan.

- 3.01 <u>In General</u>. This Article sets forth the rules under which Participants may elect to receive their benefits in a lump sum. Except as provided in Section 3.05, this Article does not apply to employees in cases where benefits under a particular Program are automatically payable in lump sum form under Article II. This Article will not apply if a particular Program so provides.
- 3.02 <u>Election</u>. Participants may elect to have their benefits paid in the form of a single lump sum under this Section.
 - (a) An election to take a lump sum may be made at any time during the 60-day period prior to Termination of Employment and covers both—
 - (1) Benefits payable to the Participant during his or her lifetime, and
 - (2) Survivor benefits (if any) payable to the Participant's beneficiary, including preretirement death benefits (if any) payable to the Participant's spouse.
 - (b) An election does not become effective until the earlier of:
 - (1) the Participant's Termination of Employment, or
 - (2) the Participant's death.
 - (c) Before the election becomes effective, it may be revoked.
 - (d) If a Participant does not have a Termination of Employment within 60 days after making an election, the election will never take effect.
 - (e) An election may only be made once. If it fails to become effective after 60 days or is revoked before becoming effective, it cannot be made again at a later time.
 - (f) After a Participant has a Termination of Employment, no election can be made.
 - (g) If a Participant dies before making a lump sum election, his or her spouse may not make a lump sum election with respect to any benefits which may be due the spouse.

- (h) Elections to receive a lump sum must be made in writing and must include spousal consent if the Participant is married. Elections and spousal consent must be witnessed by a Plan representative or a notary public.
- 3.03 <u>Lump Sum—Retirement Eligible</u>. If a Participant with a valid lump sum election in effect under Section 3.02 has a Termination of Employment after he or she is entitled to commence benefits under the Pension Plans, payments will be made in accordance with this Section.
 - (a) Monthly benefit payments will be made for up to 12 months, commencing the first of the month following Termination of Employment. Payments will be made:
 - (1) in the case of a Participant who is not married on the date benefits are scheduled to commence, based on a straight life annuity for the Participant's life and ceasing upon the Participant's death should he or she die before the 12 months elapse, or
 - (2) in the case of a Participant who is married on the date benefits are scheduled to commence, based on a joint and survivor annuity form—
 - (A) with the survivor benefit equal to 50% of the Participant's benefit;
 - (B) with the Participant's spouse as the survivor annuitant;
 - (C) determined by using the contingent annuitant option factors used to convert straight life annuities to 50% joint and survivor annuities under the Northrop Grumman Retirement Plan; and
 - (D) with all payments ceasing upon the death of both the Participant and his or her spouse should they die before the 12 months elapse.
 - (b) As of the first of the 13th month, the present value of the remaining benefit payments will be paid in a single lump sum. Payment of the lump sum will be made to the Participant if he or she is still alive, or, if not, to his or her surviving spouse, if any.
 - (c) No lump sum payment will be made if:

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- (1) The Participant is receiving monthly benefit payments in the form of a straight life annuity and the Participant dies before the time the lump sum payment is due.
- (2) The Participant is receiving monthly benefit payments in a joint and survivor annuity form and the Participant and his or her spouse both die before the time the lump sum payment is due.
- (d) A lump sum will be payable to a Participant's spouse as of the first of the month following the date of the Participant's death, if:
 - (1) the Participant dies after making a valid lump sum election but prior to commencement of any benefits under this Plan;
 - (2) the Participant is survived by a spouse who is entitled to a preretirement surviving spouse benefit under this Plan; and
 - (3) the spouse survives to the first of the month following the date of the Participant's death.
- 3.04 <u>Lump Sum—Not Retirement Eligible</u>. If a Participant with a valid lump sum election in effect under Section 3.02 has a Termination of Employment before he or she is entitled to commence benefits under the Pension Plans, payments will be made in accordance with this Section.
 - (a) No monthly benefit payments will be made.
 - (b) Following Termination of Employment, a single lump sum payment of the benefit will be made on the first of the month following 12 months after the date of the Participant's Termination of Employment.
 - (c) A lump sum will be payable to a Participant's spouse as of the first of the month following the date of the Participant's death, if:
 - (1) the Participant dies after making a valid lump sum election but prior to commencement of any benefits under this Plan;
 - (2) the Participant is survived by a spouse who is entitled to a preretirement surviving spouse benefit under this Plan; and
 - (3) the spouse survives to the first of the month following the date of the Participant's death.
 - (d) No lump sum payment will be made if the Participant is unmarried at the time of death and dies before the time the lump sum payment is due.



- 3.05 <u>Lump Sums with CIC Severance Plan Election</u>. A Participant who elects lump sum payments of all his or her nonqualified benefits under the CIC Plans is entitled to have his or her benefits paid as a lump sum calculated under the terms of the applicable CIC Plan. Otherwise, benefit payments are governed by the general provisions of this Article, which provide different rules for calculating the amount of lump sum payments.
- 3.06 Calculation of Lump Sum.
 - (a) The factors to be used in calculating the lump sum are as follows:
 - (1) <u>Interest</u>: Whichever of the following two rates that produces the smaller lump sum:
 - (A) the discount rate used by the Company for purposes of Statement of Financial Accounting Standards No. 87 of the Financial Accounting Standards Board as disclosed in the Company's annual report to shareholders for the year end immediately preceding the date of distribution, or
 - (B) the applicable interest rate that would be used to calculate a lump sum value for the benefit under the Pension Plans.
 - (2) <u>Mortality</u>: the applicable mortality table, which would be used to calculate a lump sum value for the benefit under the Pension Plans.
 - (3) <u>Increase in Section 415 Limit</u>: 4% per year.
 - (4) <u>Age</u>: Age rounded to the nearest month on the date the lump sum is payable.
 - (5) <u>Variable Unit Values</u> Variable Unit Values are presumed not to increase for future periods after the date the lump sum is payable.
 - (b) The annuity to be converted to a lump sum will be the remaining annuity currently payable to the Participant or his or her beneficiary at the time the lump sum is due.
 - (1) For example, assume a Participant is receiving benefit payments in the form of a 50% joint and survivor annuity.
 - (2) If the Participant and the survivor annuitant are both still alive at the time the lump sum payment is due, the present value calculation will be based on the remaining benefits that would be paid to both the Participant and the survivor in the annuity form.

- (3) If only the survivor is alive, the calculation will be based solely on the remaining 50% survivor benefits that would be paid to the survivor.
- (4) If only the Participant is alive, the calculation will be based solely on the remaining benefits that would be paid to the Participant.
- (5) In the case of a Participant who dies prior to commencement of benefits under this Plan so that only a preretirement surviving spouse benefit (if any) is payable, the lump sum will be based solely on the value of the preretirement surviving spouse benefit.
- (c) In the case of a lump-sum under Section 3.05 (related to lump sums with a CIC Severance Plan election), the lumpsum amount will be calculated as described in that section and the rules of this Section 3.06 are not used.
- 3.07 <u>Spousal consent</u>. Spousal consent, as required for elections as described above, need not be obtained if the Company determines that there is no spouse or the spouse cannot be located.

* * *

IN WITNESS WHEREOF, this Amendment and Restatement is hereby executed by a duly authorized officer on this 18th day of December, 2012.

NORTHROP GRUMMAN CORPORATION

By: <u>/s/ Christopher McGee</u> Christopher McGee Vice President, Compensation & Benefits

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APPENDIX 1 – 2005-2007 TRANSITION RULES

This Appendix 1 provides the distribution rules that apply to the portion of benefits under the Plan subject to Code section 409A for Participants with benefit commencement dates after January 1, 2005 and before January 1, 2008.

- 1.01 <u>Election</u>. Participants 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. Participants electing optional forms of benefits under this provision will commence payments on the Participant's selected benefit commencement date.
- 1.02 <u>2005 Commencements</u>. Pursuant to IRS Notice 2005-1, Q&A-19 & Q&A-20, Participants 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 Participant.
 - (a) <u>Key Employees</u>. 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) <u>Lump Sum Option</u>. During 2005, a temporary immediate lump sum feature shall be available as follows:
 - In order to elect a lump sum payment pursuant to IRS Notice 2005-1, Q&A-20, a Participant 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;
 - (ii) The lump sum payment shall be made in 2005 as soon as feasible after the election; and
 - (iii) 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.

1.03 <u>2006 and 2007 Commencements</u>. 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 Participant's benefit election date, or (b) the underlying qualified pension plan benefit commencement date (as specified in the Participant'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).

<u>APPENDIX 2 – POST 2007</u> DISTRIBUTION OF 409A AMOUNTS

The provisions of this Appendix 2 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 Articles II and III, and Appendix 1 addresses distributions of amounts subject to Code section 409A with benefit commencement dates after January 1, 2008.

- 2.01 <u>Time of Distribution</u>. Subject to the special rules provided in this Appendix 2, distributions to a Participant of his vested retirement benefit shall commence as of the Payment Date.
- 2.02 Special Rule for Key Employees. If a Participant is a Key Employee and age 55 or older at his Separation from Service, distributions to the Participant 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 Participant's death). Amounts otherwise payable to the Participant during such period of delay shall be accumulated and paid on the first day of the seventh month following the Participant'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).
- 2.03 <u>Forms of Distribution</u>. Subject to the special rules provided in this Appendix 2, a Participant's vested retirement benefit shall be distributed in the form of a single life annuity. However, a Participant may elect an optional form of benefit up until the Payment Date. 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 a Participant is married on his Payment Date 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 Payment Date 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.

2.04 <u>Death</u>. If a married Participant dies before the Payment Date, a death benefit will be payable to the Participant's spouse commencing 90 days after the Participant's death. The death benefit will be a single life annuity in an amount equal to the survivor portion of a Participant's vested retirement benefit based on a 100% joint and survivor annuity determined on the Participant's date of death. This benefit is also payable to a

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Participant's domestic partner who is properly registered with the Company in accordance with procedures established by the Company.

2.05 <u>Actuarial Assumptions</u>. Except as provided in Section 2.06 of this Appendix 2, all forms of payment under this Appendix 2 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

2.06 Accelerated Lump Sum Payouts.

- (a) <u>Post-2007 Separations</u>. Notwithstanding the provisions of this Appendix 2, for Participants who Separate from Service on or after January 1, 2008, if the present value of (a) the vested portion of a Participant'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 Participant (or his spouse or domestic partner, if applicable) in a lump sum payment. Subject to the special timing rule for Key Employees under Section 2.02 of this Appendix 2, the lump sum payment shall be made within 90 days after the first of the month coincident with or following the date of the Participant's Separation from Service.
- (b) <u>Pre-2008 Separations</u>. Notwithstanding the provisions of this Appendix 2, for Participants who Separate from Service before January 1, 2008, if the present value of (a) the vested portion of a Participant'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 Participant attains age 55, is less than or equal to \$25,000, such benefit amount shall be distributed to the Participant (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 Participant attains age 55, but no earlier that January 1, 2008.
- (c) <u>Conflicts of Interest</u>. The present value of a Participant'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) <u>Present Value Calculation</u>. The conversion of a Participant's retirement benefit into a lump sum payment and the present value calculations under this Section 2.06 of this Appendix 2 shall be based on the actuarial assumptions in effect under

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the Northrop Grumman Pension Plan for purposes of calculating lump sum amounts, and will be based on the Participant's immediate benefit if the Participant is 55 or older at Separation from Service. Otherwise, the calculation will be based on the benefit amount the Participant will be eligible to receive at age 55.

- 2.07 <u>Effect of Early Taxation</u>. 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.
- 2.08 <u>Permitted Delays</u>. Notwithstanding the foregoing, any payment to a Participant 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 2.08 of this Appendix 2 shall be paid in accordance with Code section 409A.

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APPENDIX 3 – 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 II of the Plan), other than the "Forfeiture of Benefits" provisions in Sections F.10, G.10 and I.10 of the Plan which Sections shall continue to be administered by the Compensation Committee or its delegate, and (2) an Investment Committee that shall have responsibility for overseeing any rabbi trusts or other informal funding for the Plan.

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NORTHROP GRUMMAN

ERISA SUPPLEMENTAL PLAN

(Amended and Restated Effective as of January 1, 2013)

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INTRODUCTION

The Northrop Grumman ERISA Supplemental Plan (the "Plan"), formerly known as the Northrop Corporation ERISA Supplemental Plan 1, is hereby amended and restated effective as of January 1, 2013. This restatement amends the July 20, 2012 restatement of the Plan and includes 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.

ARTICLE I

Definitions

For purposes of the Plan, the following terms, when capitalized, will have the following meanings:

- 1.01 <u>Affiliated Companies</u>. 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.
- 1.02 <u>CIC Plans</u>. 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.
- 1.03 <u>Code</u>. The Internal Revenue Code of 1986, as amended.
- 1.04 <u>Company</u>. The Company as designated in the Pension Plans.
- 1.05 <u>Grandfathered Amounts</u>. Plan benefits that were earned and vested as of December 31, 2004 within the meaning of Code section 409A and official guidance thereunder.
- 1.06 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 Participants 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.
- 1.07 <u>Participant</u>. Any employee who (a) is eligible for benefits under one or both Pension Plans, (b) meets the eligibility requirements of Section 2.02 of this Plan and (c) and has not received full payment under the Plan.

- 1.08 <u>Payment Date</u>. The 1st of the month coincident with or following the later of (a) the date the Participant attains age 55, or (b) the date the Participant Separates from Service.
- 1.09 <u>Plan</u>. The Northrop Grumman ERISA Supplemental Plan, formerly known as the Northrop Corporation ERISA Supplemental Plan 1.
- 1.10 <u>Pension Plan Benefits</u>. This term is defined in Section 2.08 of this Plan.
- 1.11 <u>Pension Plan</u> and <u>Pension Plans</u>. 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.

- 1.12 <u>Separation from Service</u> or <u>Separates from Service</u>. A "separation from service" within the meaning of Code section 409A.
- 1.13 <u>Termination of Employment</u>. Complete termination of employment with the Affiliated Companies.
 - (a) If a Participant leaves one Affiliated Company to go to work for another, he or she will not have a Termination of Employment.
 - (b) A Participant will have a Termination of Employment if he or she leaves the Affiliated Companies because the affiliate he or she works for ceases to be an Affiliated Company because it is sold or spunoff.

ARTICLE II

Eligibility for and Amount of Benefits

2.01 <u>Purpose</u>. The purpose of this Plan is simply to restore to employees of the Company the benefits they lose under the Pension Plans as a result of the benefit limits in Code section 415, as amended, or any successor section ("section 415"), as the benefit limits are described in the applicable Pension Plan.

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- 2.02 <u>Eligibility</u>. Each Participant is eligible to receive a benefit under this Plan if:
 - (a) he or she has vested in benefits under one or more of the Pension Plans;
 - (b) he or she has vested benefits reduced because of the application of section 415;
 - (c) he or she is not eligible to receive a benefit under the Northrop Corporation Supplemental Retirement Income Program for Senior Executives or any other plan or program which bars an employee from participation in this Plan; and
 - (d) he or she is not a "Participant" in the Charles H. Noski Executive Retirement Plan as that term is defined under that plan.
- 2.03 <u>Amount of Benefit</u>. The benefit payable from the Company under this Plan to a Participant will equal the retirement benefit, if any, which would have been payable to the Participant under the terms of a Pension Plan but for the restrictions of section 415 (as described in the applicable Pension Plan).

The benefit payable under this Plan will be reduced by the amount of Pension Plan Benefits attributable to the applicable Pension Plan.

Benefits under this Plan will only be paid to supplement benefit payments actually made from a Pension Plan. If benefits are not payable under a Pension Plan because the Participant has failed to vest or for any other reason, no payments will be made under this Plan with respect to such Pension Plan.

In no event, however, (1) will this Plan pay any amount of a Participant's retirement benefit, if any, attributable to the "2000 Ad Hoc Increase for Retirees" Appendix added to certain of the Company's tax-qualified plans pursuant to the Board of Directors resolution adopted May 17, 2000, or (2) will a Participant be entitled to a benefit (or an increased benefit) from or as a result of participation in this Plan under the Board of Directors resolution adopted May 17, 2000.

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 Compensation Committee that is (a) calculated pursuant to the method for determining a bonus amount under the Annual Incentive Plan (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.
- 2.04 <u>Preretirement Surviving Spouse Benefit</u>. This Section only applies to Grandfathered Amounts.

Preretirement surviving spouse benefits will be payable under this Plan on behalf of a Participant if such Participant's surviving spouse is eligible for preretirement surviving

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spouse benefits payable from a Pension Plan. The benefit payable will be the amount which would have been payable under the Pension Plan but for the restrictions of section 415 (as described in the applicable Pension Plan).

The benefit payable under this Plan will be reduced by the amount of Pension Plan Benefits attributable to the applicable Pension Plan.

No benefit will be payable under this Plan with respect to a spouse after the death of that spouse.

See Appendix A and Appendix B for the rules that apply to other benefits earned under the Plan.

2.05 <u>Forms and Times of Benefit Payments</u>. This Section only applies to Grandfathered Amounts.

The Company will determine the form and timing of benefit payments in its sole discretion. However, for payments made to supplement those of a particular Pension Plan, the Company will only select among the options available under that Pension Plan, and using the same actuarial adjustments used in that Pension Plan except in cases of lump sums.

Whenever the present value of the amount payable under the Plan does not exceed \$10,000, it will be paid in the form of a single lump sum as of the first of the month following Termination of Employment. The lump sum will be calculated using the factors and methodology described in Section 3.08 below. (See Section 2.09 for the rule that applies as of January 1, 2008).

No payments will commence under this Plan until a Participant has a Termination of Employment, even in cases where benefits have commenced under a Pension Plan for Participants over age 70-1/2.

See Appendix A and Appendix B for the rules that apply to other benefits earned under the Plan.

2.06 <u>Beneficiaries and Spouses</u>. This Section only applies to Grandfathered Amounts.

If the Company selects a form of payment which includes a survivor benefit, the Participant may make a beneficiary designation, which may be changed at any time prior to commencement of benefits. A beneficiary designation must be in writing and will be effective only when received by the Company.

If a Participant is married on the date his or her benefits are scheduled to commence, his or her beneficiary will be his or her spouse unless some other beneficiary is named with spousal consent. Spousal consent, to be effective, must be submitted in writing before benefits commence 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.

The Participant's spouse will be the spouse as determined under the underlying Pension Plan.

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See Appendix A and Appendix B for the rules that apply to other benefits earned under the Plan.

- 2.07 <u>Plan Termination</u>. No further benefits may be earned under this Plan with respect to a particular Pension Plan after the termination of such Pension Plan.
- 2.08 <u>Pension Plan Benefits</u>. The term "Pension Plan Benefits" generally means the benefits actually payable to a Participant, spouse, beneficiary or contingent annuitant under a Pension Plan. However, this Plan is only intended to remedy pension reductions caused by the operation of section 415 and not reductions caused for any other reason. In those instances where pension benefits are reduced for some other reason, the term "Pension Plan Benefits" shall be deemed to mean the benefits that would have been actually payable but for such other reason.

Examples of such other reasons include, but are not limited to, the following:

- (a) A reduction in pension benefits as a result of a distress termination (as described in ERISA § 4041(c) or any comparable successor provision of law) of a Pension Plan. In such a case, the Pension Plan Benefits will be deemed to refer to the payments that would have been made from the Pension Plan had it terminated on a fully funded basis as a standard termination (as described in ERISA § 4041(b) or any comparable successor provision of law).
- (b) A reduction of accrued benefits as permitted under Code section 412(c)(8), as amended, or any comparable successor provision of law.
- (c) A reduction of pension benefits as a result of payment of all or a portion of a Participant's benefits to a third party on behalf of or with respect to a Participant.
- 2.09 <u>Mandatory Cashout</u>. Notwithstanding any other provisions in the Plan, Participants with Grandfathered Amounts who have not commenced payment of such benefits prior to January 1, 2008 will be subject to the following rules:
 - (a) <u>Post-2007 Terminations</u>. Participants who have a Termination of Employment after 2007 will receive a lump sum distribution of the present value of their Grandfathered Amounts within two months of Termination of Employment (without interest), if such present value is below the Code section 402(g) limit in effect at the Termination of Employment.
 - (b) <u>Pre-2008 Terminations</u>. Participants who had a Termination of Employment 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.

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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.

- 2.10 <u>Optional Payment Forms</u>. Participants 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

2.11 <u>Special Tax Distribution</u>. On the date a Participant's retirement benefit is reasonably ascertainable within the meaning of IRS regulations under Code section 3121(v)(2), an amount equal to the Participant'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 Participant's future benefit payments under the Plan on an actuarial basis.

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ARTICLE III

Lump Sum Election

This Article only applies with respect to Grandfathered Amounts. See Appendix A and Appendix B for the distribution rules that apply to other benefits earned under the Plan.

- 3.01 <u>In General</u>. This Article sets forth the rules under which Participants may elect to receive their benefits in a lump sum. Except as provided in Section 3.08, this Article does not apply to active employees (as defined in Section 3.04) in cases where benefits are automatically payable in lump sum form under Article II.
- 3.02 <u>Retirees Election</u>. Participants and Participants' beneficiaries already receiving monthly benefits under the Plan at its inception will be given a one-time opportunity to elect a lump sum payout of future benefit payments.
 - (a) The election must be made within a 60-day period determined by the Company. Within its discretion, the Company may delay the commencement of the 60-day period in instances where the Company is unable to timely communicate with a particular payee.
 - (b) The determination as to whether a payee is already receiving monthly benefits will be made at the beginning of the 60day period.
 - (c) An election to take a lump sum must be accompanied by a waiver of the existing retiree medical benefits by those Participants (and their covered spouses or surviving spouses) entitled either to have such benefits entirely paid for by the Company or to receive such benefits as a result of their classification as an employee under Executive Class Code II.

Following the waiver, waiving Participants (and covered spouses or surviving spouses) will be entitled to the coverage offered to employees who are eligible for Senior Executive Retirement Insurance Benefits in effect as of July 1, 1993.

- (d) If the person receiving payments as of the beginning of the 60-day period dies prior to making a lump sum election, his or her beneficiary, if any, may not make the lump sum election.
- (e) Elections to receive a lump sum (and waivers under (c)) must be made in writing and must include spousal consent if the payee (whether the Participant or beneficiary) is married. Elections and spousal consent must be witnessed by a Plan representative or a notary public.
- (f) An election (with spousal consent, where required) to receive the lump sum made at any time during the 60-day period will be irrevocable. If no proper election has been made by the end of the 60-day period, payments will continue unchanged in the monthly form that had previously been applicable.

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- 3.03 <u>Retirees Lump Sum</u>. If a retired Participant or beneficiary makes a valid election under Section 3.02 within the 60-day period, monthly payments will continue in the previously applicable form for 12 months (assuming the payees live that long).
 - (a) As of the first of the 13th month, the present value of the remaining benefit payments will be paid in a single lump sum to the Participant, if alive, or, if not, to the beneficiary under the previously applicable form of payment.
 - (b) No lump sum payment will be made if:
 - (1) The Participant is receiving monthly benefit payments in a form that does not provide for survivor benefits and the Participant dies before the time the lump sum payment is due.
 - (2) The Participant is receiving monthly benefit payments in a form that does provide for survivor benefits but the Participant and the beneficiary die before the time the lump sum payment is due.
 - (c) The following rules apply where payment is being made in the form of a 10-year certain and continuous life annuity option:
 - (1) If the Participant is deceased at the commencement of the 60-day election period, the surviving beneficiary may not make the election if there are less than 13 months left in the 10-year certain period.
 - (2) If the Participant elects the lump sum and dies prior to the first of the 13th month:
 - (A) if the 10-year certain period has already ended, all monthly payments will cease at the Participant's death and no lump sum payment will be made;
 - (B) if the 10-year certain period ends after the Participant's death and before the beginning of the 13 th month, monthly payments will end at the end of the 10-year certain period and no lump sum payment will be made; and
 - (C) if the 10-year certain period ends after the beginning of the 13 th month, monthly payments will continue through the 12 th month, and a lump sum payment will be made as of the first of the 13 th month, equal to the present value of the remaining benefit payments.
- 3.04 <u>Actives Election</u>. Active Participants may elect to have their benefits paid in the form of a single lump sum under this Section.



- (a) A Participant is considered to be "Active" under this Section if he or she is still employed by the Affiliated Companies on or after the beginning of the initial 60-day period referred to in Section 3.02.
- (b) An election to take a lump sum may be made at any time during the 60-day period prior to Termination of Employment and covers both—
 - (1) Benefits payable to the Participant during his or her lifetime, and
 - (2) Survivor benefits (if any) payable to the Participant's beneficiary, including preretirement death benefits (if any) payable to the Participant's spouse.
- (c) An election does not become effective until the earlier of
 - (1) the Participant's Termination of Employment, or
 - (2) the Participant's death.

Before the election becomes effective, it may be revoked.

If a Participant does not have a Termination of Employment within 60 days after making an election, the election will never take effect.

- (d) An election may only be made once. If it fails to become effective after 60 days or is revoked before becoming effective, it cannot be made again at a later time.
- (e) After a Participant has a Termination of Employment, no election can be made.
- (f) If a Participant dies before making a lump sum election, his or her spouse may not make a lump sum election with respect to any benefits which may be due the spouse.
- (g) Elections to receive a lump sum must be made in writing and must include spousal consent if the Participant is married. Elections and spousal consent must be witnessed by a Plan representative or a notary public.
- 3.05 <u>Actives Lump Sum Retirement Eligible</u>. If a Participant with a valid lump sum election in effect under Section 3.04 has a Termination of Employment after he or she is entitled to commence benefits under the Pension Plans, payments will be made in accordance with this Section.
 - (a) Monthly benefit payments will be made for up to 12 months, commencing the first of the month following Termination of Employment. Payments will be made:

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- (1) in the case of a Participant who is not married on the date benefits are scheduled to commence, based on a straight life annuity for the Participant's life and ceasing upon the Participant's death should he or she die before the 12 months elapse, or
- (2) in the case of a Participant who is married on the date benefits are scheduled to commence, based on a joint and survivor annuity form
 - (A) with the survivor benefit equal to 50% of the Participant's benefit;
 - (B) with the Participant's spouse as the survivor annuitant;
 - (C) determined by using the contingent annuitant option factors used to convert straight life annuities to 50% joint and survivor annuities under the Northrop Retirement Plan; and
 - (D) with all payments ceasing upon the death of both the Participant and his or her spouse should they die before the 12 months elapse.
- (b) As of the first of the 13th month, the present value of the remaining benefit payments will be paid in a single lump sum. Payment of the lump sum will be made to the Participant if he or she is still alive, or, if not, to his or her surviving spouse, if any.
- (c) No lump sum payment will be made if:
 - (1) The Participant is receiving monthly benefit payments in the form of a straight life annuity and the Participant dies before the time the lump sum payment is due.
 - (2) The Participant is receiving monthly benefit payments in a joint and survivor annuity form and the Participant and his or her spouse both die before the time the lump sum payment is due.
- (d) A lump sum will be payable to a Participant's spouse as of the first of the month following the date of the Participant's death, if:
 - (1) the Participant dies after making a valid lump sum election but prior to commencement of any benefits under this Plan;
 - (2) the Participant is survived by a spouse who is entitled to a preretirement surviving spouse benefit under this Plan; and
 - (3) the spouse survives to the first of the month following the date of the Participant's death.

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- 3.06 <u>Actives Lump Sum Not Retirement Eligible</u>. If a Participant with a valid lump sum election in effect under Section 3.04, has a Termination of Employment before he or she is entitled to commence benefits under the Pension Plans, payments will be made in accordance with this Section.
 - (a) No monthly benefit payments will be made.
 - (b) Following Termination of Employment, a single lump sum payment of the benefit will be made on the first of the month following 12 months after the date of the Participant's Termination of Employment.
 - (c) A lump sum will be payable to a Participant's spouse as of the first of the month following the date of the Participant's death, if:
 - (1) the Participant dies after making a valid lump sum election but prior to commencement of any benefits under this Plan;
 - (2) the Participant is survived by a spouse who is entitled to a preretirement surviving spouse benefit under this Plan; and
 - (3) the spouse survives to the first of the month following the date of the Participant's death.
 - (d) No lump sum payment will be made if the Participant is unmarried at the time of death and dies before the time the lump sum payment is due.
- 3.07 <u>Lump Sums with CIC Severance Plan Election</u>. A Participant who elects lump sum payments of all his or her nonqualified benefits under the CIC Plans is entitled to have his or her benefits paid as a lump sum calculated under the terms of the applicable CIC Plan. Otherwise, benefit payments are governed by the general provisions of this Article, which provide different rules for calculating the amount of lump sum payments.
- 3.08 <u>Calculation of Lump Sum</u>. The factors to be used in calculating the lump sum are as follows:

Interest: Whichever of the following two rates that produces the smaller lump sum:

- (1) the discount rate used by the Company for purposes of Statement of Financial Accounting Standards No. 87 of the Financial Accounting Standards Board as disclosed in the Company's annual report to shareholders for the year end immediately preceding the date of distribution, or
- (2) the applicable interest rate that would be used to calculate a lump sum value for the benefit under the Pension Plans.

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<u>Mortality</u>: the applicable mortality table that would be used to calculate a lump sum value for the benefit under the Northrop Grumman Retirement Plan.

Increase in Section 415 Limit: 4% per year.

Age: Age rounded to the nearest month on the date the lump sum is payable.

<u>Variable Unit Values</u> Variable Unit Values are presumed not to increase for future periods after the date the lump sum is payable.

The annuity to be converted to a lump sum will be the remaining annuity currently payable to the Participant or his or her beneficiary at the time the lump sum is due.

For example, assume a Participant is receiving benefit payments in the form of a 50% joint and survivor annuity.

If the Participant and the survivor annuitant are both still alive at the time the lump sum payment is due, the present value calculation will be based on the remaining benefits that would be paid to both the Participant and the survivor in the annuity form.

If only the survivor is alive, the calculation will be based solely on the remaining 50% survivor benefits that would be paid to the survivor.

If only the Participant is alive, the calculation will be based solely on the remaining benefits that would be paid to the Participant.

In the case of a Participant who dies prior to commencement of benefits under this Plan so that only a preretirement surviving spouse benefit (if any) is payable, the lump sum will be based solely on the value of the preretirement surviving spouse benefit.

In the case of a lump-sum under Section 3.07 (related to lump sums with a CIC Severance Plan election), the lump-sum amount will be calculated as described in that section and the rules of this Section 3.08 are not used.

3.09 <u>Spousal Consent</u>. Spousal consent, as required for elections as described above, need not be obtained if the Company determines that there is no spouse or the spouse cannot be located.

ARTICLE IV

Miscellaneous

4.01 <u>Amendment and Plan Termination</u>. 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,

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whether or not a Participant has already made a lump sum election. Notwithstanding the foregoing, no amendment or termination of the Plan shall reduce the amount of a Participant'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.

The Company may, in its sole discretion, seek reimbursement from the Pension Plans to the extent this Plan pays Pension Plan Benefits to which Participants were entitled to or became entitled to under the Pension Plans.

- 4.02 <u>Not an Employment Agreement</u>. Nothing contained in this Plan gives any Participant the right to be retained in the service of the Company, nor does it interfere with the right of the Company to discharge or otherwise deal with Participants without regard to the existence of this Plan.
- 4.03 <u>Assignment of Benefits</u>. A Participant, surviving spouse or beneficiary may not, either voluntarily or involuntarily, assign, anticipate, alienate, commute, sell, transfer, pledge or encumber any benefits to which he or she is or may become entitled under the Plan, nor may Plan benefits be subject to attachment or garnishment by any of their creditors or to legal process.

Notwithstanding the foregoing, all or a portion of a Participant's benefit may be paid to another person as specified in a domestic relations order that the plan administrator 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 plan administrator.

The plan administrator shall determine whether any document received by it is a Qualified Domestic Relations Order. In making this determination, the plan administrator 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.

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4.04 <u>Nonduplication of Benefits</u>. This Section applies if, despite Section 4.03, with respect to any Participant (or his or her beneficiaries), the Company is required to make payments under this Plan to a person or entity other than the payees described in the Plan. In such a case, any amounts due the Participant (or his or her beneficiaries) under this Plan will be reduced by the actuarial value of the payments required to be made to such other person or entity.

Actuarial value will be determined using the factors and methodology described in Section 3.08 above (in the case of lump sums) and using the actuarial assumptions in the underlying Pension Plan in all other cases.

In dividing a Participant's benefit between the Participant and another person or entity, consistent actuarial assumptions and methodologies will be used so that there is no increased actuarial cost to the Company.

4.05 <u>Funding</u>. Participants have the status of general unsecured creditors of the Company and the Plan constitutes a mere promise by the Company to make benefit payments in the future. The Company may, but need not, fund benefits under the Plan through a trust. If it does so, any trust created by the Company and any assets held by the trust to assist it in meeting its obligations under the Plan will conform to the terms of the model trust, as described in Internal Revenue Service Revenue Procedure 92-64, but only to the extent required by Internal Revenue Service Revenue Procedure 92-65. It is the intention of the Company and Participants that the Plan be unfunded for tax purposes and for purposes of Title I of ERISA.

Any funding of benefits under this Plan will be in the Company's sole discretion. The Company may set and amend the terms under which it will fund and may cease to fund at any time.

- 4.06 <u>Construction</u>. The Company shall have full discretionary authority to determine eligibility and to construe and interpret the terms of the Plan, including the power to remedy possible ambiguities, inconsistencies or omissions.
- 4.07 <u>Governing Law</u>. This Plan shall be governed by the law of the Commonwealth of Virginia, except to the extent superseded by federal law.
- 4.08 <u>Actions By Company and Claims Procedures</u>. Any powers exercisable by the Company under the Plan shall be utilized by written resolution adopted by the Board of Directors or its delegate. The Board may by written resolution delegate any of the Company's powers under the Plan and any such delegations may provide for subdelegations, also by written resolution.

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

4.09 <u>Plan Representatives</u>. Those authorized to act as Plan representatives will be designated in writing by the Board of Directors or its delegate.

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- 4.10 <u>Number</u>. The singular, where appearing in this Plan, will be deemed to include the plural, unless the context clearly indicates the contrary.
- 4.11 <u>2001 Reorganization</u>. 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) <u>2001 Reorganization Date</u>. The date as of which the corporate restructuring described in (a) and (b) occurred.
 - (e) <u>Litton Acquisition Date</u>. 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.
- 4.12 <u>Liabilities Transferred to HII</u>. 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.

* * *

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IN WITNESS WHEREOF, this Amendment and Restatement is hereby executed by a duly authorized officer on this 18th day of December, 2012.

NORTHROP GRUMMAN CORPORATION

By: <u>/s/ Christopher McGee</u> Christopher McGee Vice President, Compensation & Benefits

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APPENDIX A – 2005-2007 TRANSITION RULES

This Appendix A provides the distribution rules that apply to the portion of benefits under the Plan subject to Code section 409A for Participants with benefit commencement dates after January 1, 2005 and before January 1, 2008.

- A.01 <u>Election</u>. Participants 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. Participants electing optional forms of benefits under this provision will commence payments on the Participant's selected benefit commencement date.
- A.02 <u>2005 Commencements</u>. Pursuant to IRS Notice 2005-1, Q&A-19 & Q&A-20, Participants 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 Participant.
 - (a) <u>Key Employees</u>. 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) <u>Lump Sum Option</u>. During 2005, a temporary immediate lump sum feature shall be available as follows:
 - (i) In order to elect a lump sum payment pursuant to IRS Notice 2005-1, Q&A-20, a Participant 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;
 - (ii) The lump sum payment shall be made in 2005 as soon as feasible after the election; and
 - (iii) 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.



A.03 <u>2006 and 2007 Commencements</u>. 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 Participant's benefit election date, or (b) the underlying qualified pension plan benefit commencement date (as specified in the Participant'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 B – POST 2007 DISTRIBUTION OF 409A AMOUNTS

The provisions of this Appendix B 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 Articles II and III, and Appendix A addresses distributions of amounts subject to Code section 409A with benefit commencement dates after January 1, 2008.

- B.01 <u>Time of Distribution</u>. Subject to the special rules provided in this Appendix B, distributions to a Participant of his vested retirement benefit shall commence as of the Payment Date.
- B.02 Special Rule for Key Employees. If a Participant is a Key Employee and age 55 or older at his Separation from Service, distributions to the Participant 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 Participant's death). Amounts otherwise payable to the Participant during such period of delay shall be accumulated and paid on the first day of the seventh month following the Participant'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).
- B.03 <u>Forms of Distribution</u>. Subject to the special rules provided in this Appendix B, a Participant's vested retirement benefit shall be distributed in the form of a single life annuity. However, a Participant may elect an optional form of benefit up until the Payment Date. 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 a Participant is married on his Payment Date 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 Payment Date 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.

B.04 <u>Death</u>. If a married Participant dies before the Payment Date, a death benefit will be payable to the Participant's spouse commencing 90 days after the Participant's death. The death benefit will be a single life annuity in an amount equal to the survivor portion of a Participant's vested retirement benefit based on a 100% joint and survivor annuity determined on the Participant's date of death. This benefit is also payable to a

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Participant's domestic partner who is properly registered with the Company in accordance with procedures established by the Company.

B.05 <u>Actuarial Assumptions</u>. Except as provided in Section B.06, all forms of payment under this Appendix B 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

B.06 Accelerated Lump Sum Payouts.

- (a) <u>Post-2007 Separations</u>. Notwithstanding the provisions of this Appendix B, for Participants who Separate from Service on or after January 1, 2008, if the present value of (a) the vested portion of a Participant'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 Participant (or his spouse or domestic partner, if applicable) in a lump sum payment. Subject to the special timing rule for Key Employees under Section B.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 Participant's Separation from Service.
- (b) <u>Pre-2008 Separations</u>. Notwithstanding the provisions of this Appendix B, for Participants who Separate from Service before January 1, 2008, if the present value of (a) the vested portion of a Participant'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 Participant attains age 55, is less than or equal to \$25,000, such benefit amount shall be distributed to the Participant (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 Participant attains age 55, but no earlier that January 1, 2008.
- (c) <u>Conflicts of Interest</u>. The present value of a Participant'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) <u>Present Value Calculation</u>. The conversion of a Participant's retirement benefit into a lump sum payment and the present value calculations under this Section B.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 Participant's immediate benefit if the Participant is 55 or older at Separation from Service. Otherwise, the calculation will be based on the benefit amount the Participant will be eligible to receive at age 55.

- B.07 <u>Effect of Early Taxation</u>. 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.
- B.08 <u>Permitted Delays</u>. Notwithstanding the foregoing, any payment to a Participant 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 B.08 shall be paid in accordance with Code section 409A.

APPENDIX C – 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 IV 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 SUPPLEMENTARY RETIREMENT INCOME PLAN

Amended and Restated

Effective January 1, 2013

1. Purpose. The purpose of the Northrop Grumman Supplementary Retirement Income Plan (SRIP) is to provide supplemental retirement and death benefits to those:

(i) employees, including officers, of Northrop Grumman Space & Mission Systems Corp. and its subsidiaries ("NGSMSC") whose benefits under the Northrop Grumman Space & Mission Systems Corp. Salaried Pension Plan ("SPP") have been limited by virtue of §415 of the Internal Revenue Code of 1986 ("Code");

(ii) management and highly-compensated employees of NGSMSC whose benefits under the SPP are limited by Code \$401(a)(17);

(iii) management and highly-compensated employees of NGSMSC whose compensation otherwise included as pensionable earnings received by such individual within the meaning of the SPP could not be so included because such compensation was deferred in accordance with the provisions of the Northrop Grumman Space & Mission Systems Corp. Deferred Compensation Plan or the Northrop Grumman Deferred Compensation Plan ("DC Plan" or DC Plans"); and

(iv) management and highly-compensated employees of NGSMSC whose compensation otherwise included as "Earnings" under the SPP and service otherwise included as Benefit Service under the SPP would not be so included because of a determination by NGSMSC that such inclusion could violate the regulations under Code §401(a)(4).

The SRIP is unfunded for tax purposes and for purposes of Title I of the Employee Retirement Income Security Act ("ERISA") and is designed to provide benefits which mirror the provisions of the SPP but cannot be paid from the SPP because of certain Code limitations.

The SRIP is hereby amended and restated effective as of January 1, 2013, except as otherwise provided. This restatement amends the January 1, 2012 restatement of the SRIP and includes changes that apply to Grandfathered Amounts (as defined below).

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The SRIP is intended to comply with Code section 409A and official guidance issued thereunder (except for SRIP benefits that were earned and vested as of December 31, 2004 within the meaning of Code section 409A and official guidance thereunder ("Grandfathered Amounts")). Notwithstanding any other provision of the SRIP, the SRIP shall be interpreted, operated and administered in a manner consistent with this intention.

2. Eligibility. Employees of NGSMSC covered by the SPP and not otherwise covered by the BDM International, Inc. Defined Contribution Supplemental Executive Retirement Plan (the "BDM DC SERP") whose base pay and bonus paid in any year (or deferred pursuant to the DC Plan) exceed the limitations of Code §401(a)(17) shall automatically be covered under the SRIP. All SPP participants not otherwise covered by the BDM DC SERP who are eligible to receive benefits from the SPP shall automatically receive a benefit from the SRIP if their benefit cannot be fully provided under the SPP because of the limits under Code §415. In addition, Grandfathered Participants, as defined in Appendix C, shall remain eligible to participate in the SRIP on and after January 1, 2009 and shall continue to accrue benefits as set forth in Appendix C.

The foregoing notwithstanding, effective as of February 28, 2003, individuals who qualify as "TRW Automotive Participants" under the February 28, 2003 Employee Matters Agreement between Northrop Grumman Space & Mission Systems Corp. and TRW Automotive Acquisition Corp. cease to participate in the SRIP, and the SRIP and NGSMSC cease to be liable for TRW Automotive Participants' benefits.

3. Benefits.

a. <u>In General</u>. The amount of the benefit payable under the SRIP shall be equal to the amount which would be payable to or in respect of a participant under the SPP if the limitations identified in §1 above were inapplicable, less the amount of the benefit payable under the SPP, taking into account such limitations. The amount of benefit payable under the SRIP to a participant shall also be reduced to the extent that any other nonqualified plan established by NGSMSC or any other entity affiliated with NGSMSC under Code §414(b) or (c) ("Affiliate") pays benefits to the participant that are attributable to limits imposed upon the SPP other than those identified in §1 above. The benefit payable under the SRIP for those participants who were participants in The BDM Corporation Supplemental Executive Retirement Plan which was merged into the SRIP (the "BDM SERP") on the close of business on December 31, 1998 (the "Merger Effective Date") will not be less than the benefit which had accrued under the BDM SERP necessary to calculate such accrued benefits. The benefit payable under the SRIP for the sole participant who was a "Covered Executive" in the Astro Aerospace Corporation Supplemental Executive Retirement Plan (the "Astro SERP") on the close of business on November 30, 1999 will not be less than the benefit which had accrued under the BDM SERP necessary to calculate such accrued benefits. The benefit payable under the SRIP for the sole participant who was a "Covered Executive" in the Astro Aerospace Corporation Supplemental Executive Retirement Plan (the "Astro SERP") on the close of business on November 30, 1999 will not be less than the benefit which had accrued under the sole participant so is payable under the Astro SERP as of November 30, 1999 for

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such participant, as determined in accordance with the terms of the Astro SERP as in effect on November 30, 1999 (a copy of which is attached hereto as Schedule B) and the benefit payable to such participant's spouse under the SRIP shall not be less than the benefit which would have been payable to such spouse under the terms of the Astro SERP had the participant died on November 30, 1999.

b. <u>Benefit Limit</u>. The amount of the SRIP benefit will be limited as provided below:

i. A participant's total accrued benefits under all defined benefit plans, programs, and arrangements maintained by Northrop Grumman Corporation and its affiliates (as determined under Code section 414) in which he or she participates, including the SRIP, may not exceed 60% of his or her Final Average Salary. If this limit is exceeded, the participant's benefit accrued under the SRIP will be reduced to the extent necessary to satisfy the limit.

(1) For this purpose, "Final Average Salary" has the meaning provided under Appendix G to the Northrop Grumman Supplemental Plan 2 (the "OSERP").

OSERP.

(2) The Participant's Final Average Salary will be reduced for early retirement applying the factors in the

(3) The limit in this subsection may not be exceeded even after the benefits under the SRIP have been enhanced under any change in control agreements or Northrop Grumman Corporation Special Agreements.

c. <u>Compensation</u>. The following shall not be considered as compensation for purposes of determining the amount of any benefit under the SRIP:

i. Any payment authorized by the Compensation Committee of Northrop Grumman Corporation that is (i) calculated pursuant to the method for determining a bonus amount under the Northrop Grumman Corporation Annual Incentive Plan (AIP) for a given year, and (ii) paid in lieu of such bonus in the year prior to the year the bonus would otherwise be paid under the AIP, and

ii. Any award payment under the Northrop Grumman Long-Term Incentive Cash Plan.

4. Payment of Benefits. The distribution rules of this Section 4 only apply to Grandfathered Amounts. See Appendix A and Appendix B for the rules that apply to other benefits earned under the SRIP.

a. Except as provided below, no benefit is payable from the SRIP, even if the participant has terminated his/her employment, unless a participant has five years of vesting service as defined under the SPP and has attained age fifty-five, provided, however, a benefit will be payable from the SRIP prior to a participant's attainment of age fifty-five if the participant terminates his or her employment in connection with (i) a special voluntary early retirement program offered under the SPP, the terms of which provide for eligibility prior to age fifty-five, or (ii) a special early commencement option under the SPP, the terms of which provide for commencement of the SPP benefit before age fifty-five.

b. If a participant who has five or more years of vesting service dies before his/her benefit commencement date under the SPP, the SRIP benefit shall be paid in the same form and shall commence at the same time as a pre-retirement survivor benefit under the SPP.

c. Except as provided in paragraph g., i., j., or as provided below, any participant in the SPP and the SRIP who is entitled to a vested or deferred vested pension under the SPP shall have his SRIP benefit (i) commence at the same time as his benefit commencement date under the SPP and (ii) paid in the same form and with the same designated joint annuitant, if any, as his form of payment under the SPP unless otherwise provided under the terms of any Qualified Domestic Relations Order (as defined in Section 5) applicable to said participant or unless otherwise determined by the Administrative Committee in its sole discretion. Any such participant who is eligible for the special early commencement option under the SPP may petition the Administrative Committee at any time at least two months prior to his severance from service date under the SPP to change such form of payment into a single sum or annual installments from two to ten years, or any other payment form approved by the Administrative Committee in their or its discretion. If annual installment payments are elected, interest, if any, on such installments shall be determined by the Actuary, subject to approval by the Administrative Committee. If a participant receiving installment payments dies, his remaining installment payments shall be made as scheduled to any properly designated beneficiary, or if none exists, in a single lump sum to the participant's estate.

d. Except as provided above or in paragraph g., i., or j., payment of benefits under the SRIP shall be made commencing with the January following the date the participant becomes eligible, having terminated his employment with NGSMSC and all Affiliates, for benefits under the SPP; provided, however, that if the participant's termination of employment is the result of a divestiture of the NGSMSC or Affiliate unit or operation where the participant worked prior to termination of employment and the participant obtains employment with the entity that acquired such unit or operations, then the SRIP benefit shall not be payable until such participant is eligible for and receives (or commences to receive) his SPP benefit (even if the SRIP benefit is less than \$5,000).

e. Except as provided above and in paragraph g., i., or j., the automatic form of benefit payable under the Plan shall be, for an unmarried

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participant, a single life annuity, and, for a married participant, a 50% joint and survivor annuity, with the participant's eligible spouse being the survivor annuitant. Notwithstanding the above, the participant may elect, by notice to the administrator for the SRIP, at any time at least two months prior to the severance from service date under the SPP (the "Severance from Service Date") to change such form of payment into a single sum or annual installments from two to ten years, or any other payment form approved by the Administrative Committee in its discretion. If annual installment payments are elected, interest, if any, on such installments shall be determined by the Actuary, subject to approval by the Administrative Committee. If a participant receiving installment payments dies, his remaining installment payments shall be made as scheduled to any properly designated beneficiary, or if none exists, in a single lump sum to the participant's estate.

f. If not rejected by the Administrative Committee at least 14 days prior to the Severance from Service Date, any election of a form of payment or benefit commencement date other than the automatic form and commencement date shall be irrevocable.

g. If the present value of a participant's interest in the SRIP, determined as of the later of the participant's age 55 or severance from service date under the SPP, is less than an amount which, if converted to a single sum equals \$5,000, the benefit shall be paid out in a single sum, either at the same time as his benefit commencement date under the SPP or at another date as determined by the Administrative Committee in its sole discretion. (See paragraph i for the rule that applies as of January 1, 2008.)

h. Payments to be made pursuant to the SRIP shall be made by NGSMSC, with any appropriate reimbursement being made by subsidiaries of NGSMSC. The SRIP shall be unfunded, and NGSMSC shall not be required to establish any special or separate fund nor to make any other segregation of assets in order to assure the payment of any amounts under the SRIP. Participants of the SRIP shall have the status of general unsecured creditors of NGSMSC and the SRIP constitutes a mere promise by NGSMSC to make benefit payments in the future.

i. <u>Mandatory Cashout</u> . Notwithstanding any other provisions in the SRIP, participants with Grandfathered Amounts who have not commenced payment of such benefits prior to January 1, 2008 will be subject to the following rules:

i. <u>Post-2007 Terminations</u>. Participants who have a complete termination of employment with NGSMSC and the Affiliates 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.

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ii. <u>Pre-2008 Terminations</u>. Participants who had a complete termination of employment with NGSMSC and the Affiliates 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.

j. Optional Payment Forms. Participants with Grandfathered Amounts shall be permitted to elect i. or ii. below:

i. To receive their Grandfathered Amounts in any form of distribution available under the SRIP 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 the SRIP on October 3, 2004.

ii. To receive their Grandfathered Amounts in any life annuity form not included in i. 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

k. <u>Special Tax Distribution</u>. On the date a participant's retirement benefit is reasonably ascertainable within the meaning of IRS regulations under Code section 3121(v)(2), an amount equal to the participant'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 SRIP, including Grandfathered Amounts. This payment will reduce the participant's future benefit payments under the SRIP on an actuarial basis.

5. Non-Alienation of Benefits. Neither a participant nor any other person shall have any right to sell, assign, transfer, pledge, mortgage or otherwise encumber, in advance of actual receipt, any SRIP benefit. Any such attempted assignment or transfer shall be ineffective; NGSMSC's sole obligation under the SRIP shall be to pay benefits to the participant, his beneficiary or his estate, as appropriate. No part of any SRIP benefit shall, prior to actual payment, be subject to the payment of any debts, judgments, alimony or separate maintenance owed by a participant or any other person; nor shall any SRIP benefit be transferable by operation of law in the event of a participant's or any other person's bankruptcy or insolvency, except as required or permitted by law.

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Notwithstanding the foregoing, all or a portion of a participant's benefit may be paid to another person as specified in a domestic relations order that the plan administrator 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:

a. Issued pursuant to a State's domestic relations law;

b. 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;

c. 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 SRIP; and

d. Meets such other requirements established by the plan administrator.

The plan administrator shall determine whether any document received by it is a Qualified Domestic Relations Order. In making this determination, the plan administrator 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.

6. Committees.

a. An Administrative Committee and an Investment Committee (together, the "Committees"), each of one or more persons, shall be appointed by and serve at the pleasure of the board of directors of NGSMSC (the "Board"). The number of members comprising the Committees shall be determined by the Board, which may from time to time vary the number of members. A member of the Committees 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 Committees shall be filled promptly by the Board.

b. i. Each Committee shall act at meetings by affirmative vote of a majority of the members of that Committee. Any determination of action of the Committees 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 Committees then in office. A member of the Committees 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.

ii. The Board 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 members of the Investment Committee will elect one of their members as Chairman and will appoint a Secretary and any other officers as the Investment Committee may deem necessary. The Committees shall conduct their 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 Committees may deem appropriate. The Committees shall hold meetings from time to time in any convenient location.

c. The Administrative Committee shall enforce the SRIP 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:

i. To construe and interpret the terms and provisions of the SRIP and make all factual determinations;

ii. To compute and certify to the amount and kind of benefits payable to participants and their beneficiaries;

iii. To maintain all records that may be necessary for the administration of the SRIP;

iv. 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;

v. To make and publish such rules for the regulation of the SRIP and procedures for the administration of the SRIP as are not inconsistent with the terms hereof;

vi. 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 SRIP as the Administrative Committee may from time to time prescribe (including the power to subdelegate);

vii. To exercise powers granted the Administrative Committee under other Sections of the SRIP; and

viii. To take all actions necessary for the administration of the SRIP, including determining whether to hold or discontinue insurance policies purchased in connection with the SRIP.

d. The Investment Committee shall have all powers necessary to accomplish its purposes, including, but not by way of limitation, the following:

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i. To oversee the rabbi trust, if any; and

ii. 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).

e. The Administrative Committee shall have full discretion to construe and interpret the terms and provisions of the SRIP, 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 Affiliates 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 SRIP.

f. To enable the Committees to perform their functions, the Affiliates adopting the SRIP 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 the SRIP, and such other pertinent facts as the Committees may require.

g. i. The members of the Committees shall serve without compensation for their services hereunder.

ii. 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.

iii. To the extent permitted by ERISA and applicable state law, NGSMSC 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 Affiliates 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 SRIP, 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 NGSMSC or provided by NGSMSC under any bylaw, agreement or otherwise, as such indemnities are permitted under ERISA and state law.

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7. Claims Procedure.

The standardized "Northrop Grumman Nonqualified Retirement Plans Claims and Appeals Procedures" shall apply in handling claims and appeals under the SRIP.

8. Amendment and Termination. NGSMSC may, in its sole discretion, terminate, suspend or amend the SRIP 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 SRIP with respect to lump sum distributions, including any lump sum calculation factors, whether or not a participant has already made a lump sum election. Notwithstanding the foregoing, no amendment or termination of the SRIP shall reduce the amount of a participant's accrued benefit under the SRIP as of the date of such amendment or termination.

No amendment of the SRIP 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 SRIP amendment from resulting in an inadvertent "material modification" to the Grandfathered Amounts.

9. Miscellaneous.

a. As used herein, the masculine gender shall include the feminine gender. To the extent that any term is not defined under the SRIP, it shall have the same meaning as defined in the SPP.

b. Employment rights with NGSMSC shall not be enlarged or affected by the existence of the SRIP.

c. In case any provision of the SRIP shall be held illegal or invalid for any reason, said illegality or invalidity shall not affect the remaining provisions.

d. The SRIP shall be governed by the laws of the State of Ohio to the extent not preempted by ERISA.

IN WITNESS WHEREOF, this Amendment and Restatement is hereby executed by a duly authorized officer on this 18th day of December, 2012.

NORTHROP GRUMMAN CORPORATION

By: <u>/s/ Christopher McGee</u> Christopher McGee Vice President, Compensation & Benefits

APPENDIX A

2005-2007 TRANSITION RULES

This Appendix A provides the distribution rules that apply to the portion of benefits under the SRIP subject to Code section 409A for participants with benefit commencement dates after January 1, 2005 and before January 1, 2008.

A.1 <u>Election</u>. Participants 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 SRIP as of December 31, 2004. Participants electing optional forms of benefits under this provision will commence payments on the participant's selected benefit commencement date.

A.2 <u>2005 Commencements</u>. Pursuant to IRS Notice 2005-1, Q&A-19 & Q&A-20, participants commencing payments in 2005 from the SRIP may elect a form of distribution from among those available under the SRIP on December 31, 2004, and benefit payments shall begin at the time elected by the participant.

a. <u>Key Employees</u>. A Key Employee Separating from Service on or after July 1, 2005, with SRIP 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 SRIP 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.

For purposes of Appendix A and Appendix B, A "Key Employee" is an employee treated as a "specified employee" under Code section 409A(a)(2)(B)(i) of NGSMSC or an Affiliate (i.e., a key employee (as defined in Code section 416(i) without regard to paragraph (5) thereof)) if NGSMSC's or an Affiliate's stock is publicly traded on an established securities market or otherwise. NGSMSC shall determine in accordance with a uniform NGSMSC policy which participants 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.

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For purposes of Appendix A and Appendix B, "Separation from Service" or "Separates from Service" means a "separation from service" within the meaning of Code section 409A.

b. <u>Lump Sum Option</u>. During 2005, a temporary immediate lump sum feature shall be available as follows:

i. In order to elect a lump sum payment pursuant to IRS Notice 2005-1, Q&A-20, a participant must be an elected or appointed officer of NGSMSC and eligible to commence payments under the underlying qualified pension plan on or after June 1, 2005 and on or before December 1, 2005;

ii. The lump sum payment shall be made in 2005 as soon as feasible after the election; and

iii. Interest and mortality assumptions and methodology for calculating lump sum amount shall be based on the SRIP's procedures for calculating lump sums as of December 31, 2004.

A.3 <u>2006 and 2007 Commencements</u>. Pursuant to IRS transition relief, for all benefit commencement dates in 2006 and 2007 (provided election is made in 2006 or 2007), distribution of SRIP benefits subject to Code section 409A shall begin 12 months after the later of: (a) the participant's benefit election date, or (b) the underlying qualified pension plan benefit commencement date (as specified in the participant'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).

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APPENDIX B

POST 2007 DISTRIBUTION OF 409A AMOUNTS

The provisions of this Appendix B shall apply only to the portion of benefits under the SRIP 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 Section 4, and Appendix A addresses distributions of amounts subject to Code section 409A with benefit commencement dates after January 1, 2008.

B.1 <u>Time of Distribution</u>. Subject to the special rules provided in this Appendix B, distributions to a participant of his vested retirement benefit shall commence as of the 1st of the month coincident with or following the later of (a) the date the participant attains age 55, or (b) the date the participant Separates from Service ("Payment Date").

B.2 <u>Special Rule for Key Employees</u>. If a participant is a Key Employee and age 55 or older at his Separation from Service, distributions to the participant 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 participant's death). Amounts otherwise payable to the participant during such period of delay shall be accumulated and paid on the first day of the seventh month following the participant'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).

B.3 <u>Forms of Distribution</u>. Subject to the special rules provided in this Appendix B, a participant's vested retirement benefit shall be distributed in the form of a single life annuity. However, a participant may elect an optional form of benefit up until the Payment Date. 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 a participant is married on his Payment Date 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 Payment Date and must be witnessed by a SRIP representative or notary public. No spousal consent is necessary if NGSMSC determines that there is no spouse or that the spouse cannot be found.

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B.4 <u>Death</u>. If a married participant dies before the Payment Date, a death benefit will be payable to the participant's spouse commencing 90 days after the participant's death. The death benefit will be a single life annuity in an amount equal to the survivor portion of a participant's vested retirement benefit based on a 100% joint and survivor annuity determined on the participant's date of death. This benefit is also payable to a participant's domestic partner who is properly registered with NGSMSC in accordance with procedures established by NGSMSC.

B.5 <u>Actuarial Assumptions</u>. Except as provided in Section B.6, all forms of payment under this Appendix B 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

B.6 Accelerated Lump Sum Payouts.

a. <u>Post-2007 Separations</u>. Notwithstanding the provisions of this Appendix B, for participants who Separate from Service on or after January 1, 2008, if the present value of (a) the vested portion of a participant'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 participant (or his spouse or domestic partner, if applicable) in a lump sum payment. Subject to the special timing rule for Key Employees under Section B.2, the lump sum payment shall be made within 90 days after the first of the month coincident with or following the date of the participant's Separation from Service.

b. <u>Pre-2008 Separations</u>. Notwithstanding the provisions of this Appendix B, for participants who Separate from Service before January 1, 2008, if the present value of (a) the vested portion of a participant'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 participant attains age 55, is less than or equal to \$25,000, such benefit amount shall be distributed to the participant (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 participant attains age 55, but no earlier that January 1, 2008.

c. <u>Conflicts of Interest</u>. The present value of a participant's vested retirement benefit shall also be payable in an immediate lump sum to the

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extent required under conflict of interest rules for government service and permissible under Code section 409A.

d. <u>Present Value Calculation</u>. The conversion of a participant's retirement benefit into a lump sum payment and the present value calculations under this Section B.6 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 participant's immediate benefit if the participant is 55 or older at Separation from Service. Otherwise, the calculation will be based on the benefit amount the participant will be eligible to receive at age 55.

B.7 <u>Effect of Early Taxation</u>. If a participant's benefits under the SRIP are includible in income pursuant to Code section 409A, NGSMSC 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.

B.8 <u>Permitted Delays</u>. Notwithstanding the foregoing, any payment to a participant under the SRIP shall be delayed upon NGSMSC's reasonable anticipation of one or more of the following events:

- a. NGSMSC'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 B.8 shall be paid in accordance with Code section 409A.



APPENDIX C

CUTTING EDGE OPTRONICS TRANSFER

The provisions of this Appendix C are intended to comply with Code section 409A, and to maintain the exempt status of the Grandfathered Amounts accrued by any employees of Cutting Edge Optronics. Each such employee with a Grandfathered Amount is referred to below as a "Grandfathered Participant".

C.1 <u>Transferred Employees</u>. Except for any Grandfathered Participants, the employees of Cutting Edge Optronics that would otherwise have been eligible to participate and accrue benefits under the SRIP prior to 2009 (the "Transferred Employees") shall cease to participate in the SRIP as of January 1, 2009 (the "Transfer Date").

C.2 <u>Transferred Employee Benefits</u>. Any benefits accrued by the Transferred Employees under the SRIP for services prior to the Transfer Date shall be transferred to and payable under the Litton Industries, Inc. Restoration Plan 2 ("LRP 2"). Such benefits will thus no longer be payable under the SRIP.

C.3 <u>Grandfathered Participant Benefits</u>. Each Grandfathered Participant shall remain eligible to participate in the SRIP after 2008. Subject to Section 3(b), the accrued benefits of a Grandfathered Participant under the SRIP shall equal the benefits accrued under the SRIP for services performed prior to 2009, plus the benefits that such Grandfathered Participant would otherwise have accrued and become vested in based on services performed after 2008 had he or she been eligible to participate in the LRP 2.

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 Section 6 of the Plan) and (2) an Investment Committee that shall have responsibility for overseeing any rabbi trusts or other informal funding for the Plan.

Article 2

BENEFITS

2.1 Computation of Benefits.

a. <u>Total Benefit Objective</u>. Total retirement benefits from the Company, coupled with expected Social Security benefits, are designed to provide a level of income during retirement based on the Member's service and income while with the Company. The Benefit Objective (as determined on or prior to Normal Retirement Date) for a Member who retires on or after his/her Normal Retirement Date with 20 or more years of Benefit Service (Benefit Service accrues to age 65), is 45% of the Member's Average Annual Compensation for the five highest consecutive plan years of his/her employment with the Company. For Members who retire with less than 20 years of Benefit Service, the Benefit Objective is the amount calculated above reduced by multiplying that amount by a fraction the numerator of which is the number of years of Benefit Service and the denominator of which is 20. The Benefit Objective, as defined above, is intended to be met by unreduced retirement income (without any reductions associated with any payment option) from both the Company's Retirement Plan and Supplemental Executive Retirement Plan plus the unreduced Social Security Benefit (commencing as late as age 67).

b. <u>Calculation of Benefits Under This Plan.</u> The benefit payable under this Plan shall be equal to the Benefit Objective as stated in paragraph a. above, reduced, as applicable, by the factors and in accordance with the provisions set forth for such purposes in the Retirement Plan, (i) for commencement prior to Normal Retirement Date, (ii) for election of a form of payment other than life only to the Member, and (iii) upon death, less the Retirement Plan Benefit and the unreduced Social Security Benefit as stated in paragraph a. above. If the benefit payable under this plan according to the preceding sentence plus the Retirement Plan Benefit is less than the Target Benefit Amount, as hereinafter defined, the benefit payable under this Plan shall be equal to the Target Benefit Amount less the Retirement Plan Benefit. The Target Benefit Amount shall mean \$90,000, reduced, as applicable, by the factors and in accordance with the provisions set forth for such purposes in the Retirement Plan, (i) for commencement prior to Normal Retirement Plan, (ii) for commencement prior to Normal Retirement Plan, (ii) for commencement prior to Normal Retirement Plan, (ii) for commencement prior to Normal Retirement Date, (ii) for election of a form of payment other than life only to the Member, and (iii) upon death.

2.2 Form of Benefit Payments.

The benefit payable to or on behalf of a Member as determined under Section 2.1 shall be paid in the same form, and to the same beneficiary, if any, as the Member's benefit under the Retirement Plan.

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2.3 <u>Time of Benefit Payments</u>.

Benefits due under this Plan shall be paid coincident with the payment date of benefits under the Retirement Plan.

APPENDIX A

ASTRO AEROSPACE CORPORATION

SUPPLEMENTAL EXECUTIVE RETIREMENT PLAN

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ASTRO AEROSPACE CORPORATION SUPPLEMENTAL EXECUTIVE RETIREMENT PLAN

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ASTRO AEROSPACE CORPORATION SUPPLEMENTAL EXECUTIVE RETIREMENT PLAN

INTRODUCTION

The purpose of this Supplemental Executive Retirement Plan (the "Plan") is to provide a further means whereby Astro Aerospace Corporation (the "Corporation") may afford financial security to a select group of Covered Executives of the Corporation, who render valuable services to the Corporation, constituting an important contribution toward its continued growth and success, by providing for additional future compensation so that such employees may be retained and their productive efforts encouraged, all as provided herein. Retirement Allowances under this Supplemental Executive Retirement Plan are in addition to benefits payable under the Astro Aerospace Corporation Employees' Pension Plan and any other qualified retirement plan maintained by the Corporation.

ARTICLE I

DEFINITIONS

(a) "Administrator" means the Corporation which shall be responsible for the administration of this Plan.

(b) "Astro Pension Plan" means the Astro Aerospace Corporation Employees' Pension Plan, as amended from time to time.

(c) "Affiliate" means a member of a controlled group of corporations, within the meaning of section 414(b) of the Internal Revenue Code ("Code"), which includes the Corporation; a trade or business (whether or not incorporated) which is in common control with the Corporation as determined in accordance with section 414(c) of the Code; or any organization which is a member of an affiliated service group, within the meaning of section 414(m) of the Code, which includes the Corporation, and any other organization required to be aggregated with the Corporation pursuant to section 414(o) of the Code.

(d) "Corporation" means Astro Aerospace Corporation.

(e) "Covered Executive" means a person who is a member of the Astro Pension Plan and who is designated by the board of directors of the Corporation as being eligible to receive a Retirement Allowance.

(f) "Covered Service" means, with respect to a Covered Executive, a number of years and completed months equal to his period of "Service" for purposes of the Astro Pension Plan. For purposes of this Plan, "Service", as defined under the Astro Pension Plan, shall include Service with the Corporation and its Affiliates. Covered Service shall not exceed 35 years.

(g) "Early Retirement Date" means retirement from employment with Corporation and all Affiliates after attaining age 55 with 10 years of Covered Service.

(h) "Effective Date" means September 1, 1993.

(i) "Final Average Earnings" shall have the meaning ascribed under the terms of the Spar Pension Plan except that it will not be subject to the compensation limitation imposed by Internal Revenue Code Section 401(a)(17).

(j) "Former Covered Executive" means a Covered Executive who is no longer an active Covered Executive of the Plan but who remains entitled to benefits under the Plan and is not yet receiving a Retirement Allowance.

(k) "Normal Retirement Date" means retirement from employment with Corporation and all Affiliates after attaining age 65.

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(1) "Postponed Retirement Date" means the actual retirement date of a Covered Executive who continues employment with the Corporation or any Affiliate beyond Normal Retirement Date.

(m) "Plan" means the plan to provide Retirement Allowances set forth herein and as amended from time to time, which shall be known as the Astro Aerospace Corporation Supplemental Executive Retirement Plan.

(n) "Plan Year" means the period January 1 to December 31.

(o) "Retired Executive" means a Covered Executive or Former Covered Executive who has retired and is receiving a Retirement Allowance under the Plan.

(p) "Retirement Allowance" means an amount payable to a Covered Executive, a Former Covered Executive or a Spouse under the terms of the Plan.

(q) "Spar Pension Plan" or "Registered Plan" means the Spar Aerospace Limited Pension Plan for Executive Employees, as amended from time to time.

(r) "Spar SERP" means the Spar Aerospace Limited Supplemental Executive Retirement Plan.

(s) "Spouse" means, with respect to a (Former) Covered Executive, that person to whom the (Former) Covered Executive is lawfully married at the relevant time.

(t) "Total and Permanent Disability" means a physical or mental condition which results in a Covered Executive being eligible to receive disability benefits under the federal Social Security program, or under any formal program of long-term disability insurance provided by the Corporation or its Affiliates.

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ARTICLE II

DESIGNATION OF COVERED EXECUTIVES

The Board of Directors of the Corporation ("Board") shall, from time to time, in its discretion, designate as Covered Executives, for the purposes of the Plan, individuals who are members of the Astro Pension Plan. Once an individual is designated as a Covered Executive, the Board shall notify such Covered Executive in writing of his designation and shall provide him with a copy of the Plan.

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ARTICLE III

RETIREMENT BENEFITS

3.01 Retirement Allowance on Normal or Postponed Retirement Date. A Covered Executive retiring on his Normal Retirement Date or on his Postponed Retirement Date shall be entitled to receive a monthly Retirement Allowance equal to the excess of:

(a) 1/12 x 2% x the Covered Executive's Final Average Earnings multiplied by his Covered Service; over

(b) The sum of the monthly benefits payable to the Covered Executive under the Astro Pension Plan and any other qualified retirement plan to the extent such benefits are attributable to contributions of the Corporation or its Affiliates on the Covered Executive's behalf, excluding employee deferrals and employer matching contributions under the Astro Aerospace Corporation 401(k) Savings Plan ("401(k) Plan").

The benefits payable or benefits that would be payable under (a) and (b) above shall be determined as follows:

(i) under the Astro Pension Plan (or any other defined benefit plan of the Corporation or its Affiliates in which the Covered Executive participates or participated) assuming a straight life annuity form of benefit; and

(ii) under any defined contribution plan of the Corporation or its Affiliates in which the Covered Executive participates or participated assuming the Covered Executive's account balance(s) attributable to contributions by the Corporation or its Affiliates (other than elective salary deferrals, other employee contributions, employer matching contributions and earnings thereon) is paid in the form of a single life annuity beginning on the date the payment of the Retirement Allowance commences.

When determining the amount of the Covered Executive's benefits in any plan, any such benefits paid out prior to the date on which the Retirement Allowance is determined (e.g., hardship withdrawals, payments pursuant to a qualified domestic relations order or other in-service withdrawal) shall be treated as if no such payment was made and shall be included in the calculation of (a) and (b) above in accordance with Section 3.05 herein.

3.02 Retirement Allowance on Early Retirement Date. A Covered Executive who retires on an Early Retirement Date shall be entitled to receive a Retirement Allowance commencing on his Early Retirement Date calculated in accordance with Section 3.01 provided that:

(a) The amounts in Subsection 3.01(a) and 3.01(b) will be reduced to take into account the early receipt of the Retirement Allowance. The reduction will be

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calculated consistent with the actuarial reduction applied to the benefit under the Astro Pension Plan; and

(b) The benefits under the Astro Pension Plan and any other qualified retirement plan of the Corporation or its Affiliates will be determined according to the applicable terms of such plan(s) at the Early Retirement Date.

3.03 Payment of Retirement Allowance. Retirement Allowances shall be paid on the first day of each month commencing after the Covered Executive's Normal Retirement Date, Early Retirement Date or Postponed Retirement Date, as the case may be, and, subject to Section 3.04, ceasing with the 360th monthly payment or, if earlier, the payment made coincident with or immediately preceding the death of the Covered Executive.

3.04 Retirement Allowance Payable to Surviving Spouse of a Covered Executive. If a Covered Executive who has a Spouse at the date payment of his Retirement Allowance commences, dies after retirement but before receiving 360 monthly payments of his Retirement Allowance under the Plan, such Spouse is entitled to receive a monthly amount equal to 66 2/3% of the monthly amount paid to the Covered Executive in the month immediately preceding his date of death from the Plan.

This monthly amount is payable to the Spouse for the balance of the 360 payments or until the death of the Spouse, whichever occurs first.

3.05 Deeming Rule. If the benefits payable to a Covered Executive or his Spouse under the Astro Pension Plan or any other qualified plan of the Corporation or its Affiliates are (were):

(i) commuted at the election of the Covered Executive or his Spouse, or;

(ii) divided pursuant to a decree, order or judgment of a competent tribunal, or a written separation agreement, relating to a division of property between the Covered Executive and his Spouse or former Spouse in settlement of rights arising out of their marriage or other conjugal relationship, on or after the breakdown of the marriage or other relationship; for the purposes of calculating the amount of the Covered Executive's or the surviving Spouse's Retirement Allowance, the benefits payable under such plans shall be deemed to be equal to the amount of the benefit that would have been payable if such election to commute or such division of the benefits under the plans had not been made and payment of such benefits commenced at the same time as the Retirement Allowance.

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ARTICLE IV

TERMINATION OF SERVICE

4.01 Termination Benefits. A Covered Executive, who has been a member of the Astro Pension Plan for 24 continuous months and whose employment with the Corporation and its Affiliates is terminated for any reason other than retirement or death prior to his Normal Retirement Date, shall be entitled to a Retirement Allowance commencing, subject to Section 4.02, on his Normal Retirement Date. The Retirement Allowance shall be determined in accordance with section 3.01.

4.02 Early Commencement of Deferred Retirement Allowance. A Former Covered Executive who is entitled to a Retirement Allowance payable under the terms of Section 4.01 who has elected to receive Early Retirement benefits under the Astro Pension Plan will commence receipt of his Retirement Allowance prior to his Normal Retirement Date coincident with the commencement of benefit payments from the Astro Pension Plan provided that he attained the age of 55 and had ten (10) years of Covered Service on his date of termination. The Retirement Allowance payable from such date shall be reduced to take into account the early receipt of the Retirement Allowance. The reduction will be calculated consistent with the actuarial reduction which would be applied under the Astro Pension Plan for an Early Retirement.

4.03 Applicable Provisions. The provisions of Section 3.03 and 3.04 apply to Retirement Allowances paid under Article IV, with such wording changes as may be necessary. However, the provisions of Article V shall apply when a Former Covered Executive dies prior to commencement of his Retirement Allowance.

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ARTICLE V

DEATH BENEFITS

5.01 Benefits on Covered Executive's Death Prior to Retirement. If a Covered Executive dies prior to commencement of a Retirement Allowance, the person who is his Spouse at the date of his death shall be entitled to a monthly amount equal to the excess of:

(a) 66 2/3% of the amount in Subsection 3.01(a) of the Plan calculated at the date of the Covered Executive's death,

less

(b) an amount, if any, equal to the sum of the monthly survivor benefits from the Astro Pension Plan and any other qualified plan of the Corporation or Affiliate payable to the Spouse in the same month.

The actual benefits under the Astro Pension Plan and any other qualified plan of the Corporation or Affiliate will be determined according to the applicable terms of such plan(s) at the date of the Covered Executive's death and shall not include benefits attributable to the Covered Executive's salary deferrals or matching contributions and earnings thereon under the 401(k) Plan.

Payment of the Spouse's benefit will commence on the first day of the month following the Covered Executive's date of death.

This monthly amount is payable to the Spouse for 360 monthly payments or until the death of the Spouse, whichever occurs first.

5.02 Benefits on a Former Covered Executive's Death Prior to Retirement. If a Former Covered Executive dies prior to commencement of a Retirement Allowance, his Spouse at the date of death shall be entitled to receive a Retirement Allowance equal to the Retirement Allowance calculated in accordance with Section 5.01 provided that:

(a) The amounts in subsection 3.01 will be reduced to take into account the early receipt of the Retirement Allowance. The reduction will be calculated consistent with the actuarial reduction applied to the benefit under the Astro Pension Plan; and

(b) The actual benefits under the Astro Pension Plan and any other qualified plan of the Corporation or Affiliate will be determined according to the applicable terms of such plan(s) at the Former Covered Executive's date of termination of employment with the Corporation and its Affiliates.

Payment of the Spouse's benefit will commence on the later of (1) first day of the month following the Former Covered Executive's date of death, (2) the Annuity Starting Date (as defined

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under the Astro Pension) elected by the surviving Spouse, or (3) the first date the surviving Spouse receives payment of the death benefit under the Astro Pension Plan.

This monthly amount is payable to the Spouse for 360 monthly payments or until the death of the Spouse, whichever occurs first.

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ARTICLE VI

DISABILITY BENEFITS

6.01 Disabled Covered Executives. A Covered Executive who is receiving benefits under a long-term disability benefit plan designated by the Corporation shall continue to be a Covered Executive. Such Covered Executive's Covered Service shall continue to accrue during the covered disability. The Covered Executive's Final Average Earnings while on disability shall be deemed to be equal to the Final Average Earnings in effect immediately preceding the commencement of the disability.

If the disabled Covered Executive does not return to active employment with the Corporation or any Affiliate, he will be entitled to receive a Retirement Allowance commencing, subject to Section 6.02, on his Normal Retirement Date calculated in accordance with Section 3.01, based on his Final Average Earnings on his date of disability and his Covered Service at his Normal Retirement Date.

6.02 Disability Retirement. A Covered Executive who, while in the employ of the Corporation or any Affiliate and, prior to his Normal Retirement Date:

(1) incurs a Total and Permanent Disability;

(2) does not qualify or ceases to qualify for benefits under any salary continuance or long-term disability benefits plan designated by the Corporation, or any applicable Worker's Compensation legislation; and

(3) retires under the Astro Pension Plan;

will be entitled to receive a Retirement Allowance coincident with the commencement of the payment of his benefit under the Astro Pension Plan. Such Retirement Allowance shall be equal to the amount calculated in accordance with Section 3.02 based on his Final Average Earnings on his date of disability and his Covered Service at his date of retirement.

6.03 Applicable Provisions. The provisions of Sections 3.03 and 3.04 apply to Retirement Allowances paid under Article VI, with such wording changes as may be necessary. However, the provisions of Article V shall apply when a disabled Covered Executive dies prior to commencement of his Retirement Allowance.

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ARTICLE VII

ADMINISTRATION

The Corporation is the Administrator of the Plan. The Administrator shall be responsible for the general administration of the Plan and shall perform all administrative functions and shall interpret, construe and apply the Plan provisions in accordance with its terms. The Corporation as Administrator may establish, adopt or revise rules and regulations as it deems necessary or advisable for the administration of the Plan. The Corporation may consult with and rely upon the advice of such counsel, actuaries and other advisors as it shall see fit.

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ARTICLE VIII

AMENDMENT OR TERMINATION OF THE PLAN

It is the intention of the Corporation in establishing the Plan that it should operate to the indefinite future. The Corporation does however, reserve the sole right to terminate the Plan at any time. The Corporation further reserves the right in its sole discretion to amend the Plan in any respect; provided, however, that no such amendment that reduces the value of the benefits therefore accrued by the Covered Executive shall be effective unless the Covered Executive consents to such amendment in writing.

In the event of termination of the Plan, the value of the benefits accrued by the Covered Executive at the time of termination will be determined assuming the Astro Pension Plan and all other qualified retirement plans of the Corporation and it's Affiliates are terminated at the same time. Any amendment or termination shall be made pursuant to a resolution of the Board of Directors of the Corporation and shall be effective as of the date specified in such resolution.

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ARTICLE IX

CLAIMS REVIEW PROCEDURE

9.01 Denial of Benefits. If a Retirement Allowance under the Plan is wholly or partially denied, notice of the decision shall be furnished to the Covered or Former Covered Executive or Spouse (claimant) as the case may be by the Administrator within a reasonable period of time after such decision is reached.

9.02 Notice. Any claimant who is denied a claim for Benefits shall be furnished written notice setting forth:

- (a) the specific reason or reasons for the denial;
- (b) specific reference to the pertinent provision of the Plan upon which the denial is based;
- (c) a description of any additional material or information necessary for the claimant to perfect the claim; and
- (d) an explanation of the claim review procedure under the Plan.

9.03 Appeals Procedure. In order that a claimant may appeal a denial of a claim, the claimant or the claimant's duly authorized representative may:

(a) request a review by written application to the Administrator, or its designate, no later than 60 days after receipt by the claimant of written notification of denial of a claim;

- (b) review pertinent documents; and
- (c) submit issues and comments in writing.

9.04 Review. A decision on review of a denied claim shall be made not later than 60 days after receipt of a request for review, unless special circumstances require an extension of time for processing, in which case a decision shall be rendered within a reasonable period of time, but not later than 120 days after receipt of a request for review. The decision on review shall be in writing and shall include the specific reason(s) for the decision and the specific reference(s) to the pertinent provisions of the Plan on which the decision is based.

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ARTICLE X

GENERAL

10.01 No Employment Rights. Nothing herein shall constitute a contract of continuing employment or in any manner obligate the Corporation to continue the service of a Covered Executive, or obligate a Covered Executive to continue in the service of the Corporation, and nothing herein shall be construed as fixing or regulating the compensation paid to Covered Executive.

10.02 No Claim Against the Company. Neither a Covered Executive nor any other person shall acquire by reason of the Plan any right in or title to any assets, funds or property of the Corporation whatsoever including, without limiting the generality of the foregoing, any specific funds or assets which the Corporation, in its sole discretion, may set aside in anticipation of a liability hereunder. Any trust which is created in connection with this Plan or any agreement shall provide that the assets of the trust are subject to the claims of the Corporation's general creditors. A Covered Executive shall have only a Contractual right to the amounts, if any, payable hereunder unsecured by any asset of the Corporation.

10.03 Incompetence. If the Administrator determines that any person entitled to any payment hereunder is incompetent by reason of any physical or mental disability, and consequently unable to give a valid receipt, the Administrator may cause any payment due to such person to be made to another person for his benefit, without responsibility on the part of the Administrator to follow the application of such funds. Payment made pursuant to this section 10.03 shall operate as a complete discharge of the responsibility of the Administrator.

10.04 Nonassignability. Neither a Covered Executive nor any other person shall have any right to commute, sell, assign, transfer, pledge, anticipate, mortgage or otherwise encumber, transfer, hypothecate or convey in advance of actual receipt the amounts, if any, payable hereunder, or any part thereof, which are, and all rights to which are, expressly declared to be unassignable and non-transferable. No part of the amounts payable shall, prior to actual payment, be subject to seizure or sequestration for the payment of any debts, judgments, alimony or separate maintenance owed by a Covered Executive or any other person, nor be transferable by operation of law in the event of a Covered Executive's or any other person's bankruptcy or insolvency.

10.05 Continuance of Payments. The payment of a Retirement Allowance to a Covered Executive or Former Covered Executive, or to his surviving Spouse, is subject to satisfactory proof of the existence of a Covered Executive or Former Covered Executive, or his surviving Spouse, as the case may be, as may be required from time to time by the Administrator.

10.06 Notice. Any notice required or permitted to be given to the Administrator of the Plan shall be sufficient if in writing and hand delivered, or sent by registered or certified mail, to the principal office of the Corporation, directed to the attention of the Administrator. Such notice shall be deemed given as of the date of delivery or, if delivery is made by mail, as of the date shown on the postmark or on the receipt for registration or certification.

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10.07 Gender and Number. Wherever appropriate herein, the masculine may mean the feminine and the singular may mean the plural or vice versa.

10.08 Corporate Successors. The Plan shall not be automatically terminated by a transfer or sale of assets of the Corporation or the merger or consolidation of the Corporation into or with any other corporation or other entity, but the Plan shall be continued after such sale, merger or consolidation only if and to the extent that the transferee, purchaser or successor entity agrees to continue the Plan. In the event that the Plan is not continued by the transferee, purchaser or successor entity, then the Plan shall terminate subject to the provisions of Article VIII.

10.09 Unclaimed Benefits. Each Covered Executive shall keep the Corporation informed of his current address and the current address of his Spouse. The Corporation shall not be obligated to search for the whereabouts of any person. If the location of a Covered Executive is not made known to the Corporation within three (3) years after the date on which payment of the Covered Executive's Retirement Allowance may first be made, payment may be made as though the Covered Executive had died at the end of the three-year period. If, within one additional year after such three-year period has elapsed, or, within three years after the actual death of a Covered Executive, the Corporation is able to locate any surviving Spouse of the Covered Executive, then the Corporation shall have no further obligation to pay any benefit hereunder to such Covered Executive or surviving Spouse or any other person and such benefit shall be irrevocably forfeited.

10.10 Withholding; Employment Taxes. To the extent required by the law in effect at the time payments are made, the Corporation shall withhold from payments made hereunder any taxes required to be withheld by the Federal or any state or local government.

10.11 Validity. In the event any provision of this Plan is held invalid, void or unenforceable, the same shall not affect, in any respect whatsoever, the validity of any other provision of this Plan.

10.12 Applicable Law. This Plan shall be governed and construed in accordance with the laws of the State of California.

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Exhibit 10(o)

NORTHROP GRUMMAN

ELECTRONIC SYSTEMS EXECUTIVE PENSION PLAN

(Amended and Restated Effective as of January 1, 2013)

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NORTHROP GRUMMAN

ELECTRONIC SYSTEMS EXECUTIVE PENSION PLAN

(Amended and Restated Effective as of January 1, 2013)

The Northrop Grumman Electronic Systems Executive Pension Plan (the "Plan") is hereby amended and restated effective as of January 1, 2013, except as otherwise provided. This restatement of the Plan amends the January 1, 2012 restatement and includes 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.

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ARTICLE 1

Introduction

<u>Section 1.01</u>. <u>Introduction</u>. 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.

<u>Section 1.04</u>. <u>Predecessor Plan</u>. 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.

<u>Section 1.05.</u> <u>2001 Reorganization</u>. 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 whollyowned 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) <u>2001 Reorganization Date</u>. The date as of which the corporate restructuring described in (a) and (b) occurred.

(e) <u>Litton Acquisition Date</u>. 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.

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ARTICLE 2

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:

<u>Section 2.01</u>. <u>Affiliated Companies</u>. 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 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.

<u>Section 2.06</u>. <u>Committee</u>. 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.

<u>Section 2.09</u>. <u>Designated Entity</u>. 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):

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(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.

<u>Section 2.15</u>. <u>Executive Pension Supplement</u>. 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. <u>Grandfathered Amounts</u>. Plan benefits that were earned and vested as of December 31, 2004 within the meaning of Code section 409A and official guidance thereunder.

<u>Section 2.17</u>. <u>Key Employee</u>. 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.

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<u>Section 2.18</u>. <u>Maximum Contribution</u>. 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.

<u>Section 2.20</u>. <u>Payment Date</u>. 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)

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"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;

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(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 Electric Corporation.

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

Section 2.28. <u>Westinghouse Plan</u>. The Westinghouse Executive Pension Plan, as it existed from time to time.

ARTICLE 3

Qualification for Benefits; Mandatory Retirement

<u>Section 3.01</u>. <u>Qualification for Benefits</u>. 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. $\S 631(c)(2)$.

<u>Section 3.03</u>. <u>Certain Transfers</u>. 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

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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

<u>Section 4.01</u>. <u>In General</u>. 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

<u>Section 5.01</u>. <u>Eligibility For an Immediate Benefit</u>. 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.

<u>Section 5.02</u>. <u>Calculation of Immediate Benefit</u>. 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.

<u>Section 5.03</u>. <u>Eligibility For a Deferred Benefit</u>. 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.

<u>Section 5.04</u>. <u>Calculation of Deferred Benefit</u>. 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.

<u>Section 6.02</u>. <u>Executive Pension Base</u>. 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:

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

<u>Section 6.03</u>. <u>Average Annual Compensation</u>. Average Annual Compensation = (a) + (b) as follows:

(a) 12 times the average of the five highest of the Executive's December l 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.

<u>Section 6.04</u>. <u>Annual Incentive Programs</u>. 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.



<u>Section 6.05</u>. <u>Executive Benefit Service</u>. 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:
 - (l) 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:

an Executive and

(A) was making the Maximum Contribution during each of those years after the date he or she first became

(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

<u>Section 7.01</u>. <u>Limitation on Benefits</u>. 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.

<u>Section 7.02</u>. <u>Normal Form and Commencement of Benefits</u>. 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.

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(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.

<u>Section 7.03</u>. <u>Guaranteed Benefit</u>. 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. <u>Guaranteed Surviving Spouse Benefit</u>. 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

<u>Section 7.05</u>. <u>Lump Sum Payments</u>. 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

<u>Section 7.06</u>. <u>Mandatory Cashout</u>. 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:

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(a) <u>Post-2007 Terminations</u>. 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) <u>Pre-2008 Terminations</u>. 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

<u>Section 7.08</u>. <u>Rehires</u>. 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

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Conditions to Receipt of Executive Pension Supplement

<u>Section 8.01</u>. <u>Non-Competition Condition</u>. 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 condition of this Section may be waived with respect to a recipient but only in writing and only by the Compensation Committee of the Board.

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

<u>Section 9.01</u>. <u>Committee</u>. 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.

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

<u>Section 9.03</u>. <u>Trust</u>. 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.

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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.

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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.

<u>Section 11.02</u>. <u>Facility of Payment</u>. 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.

<u>Section 11.04</u>. <u>Limitation on Rights</u>. 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.

<u>Section 11.05</u>. <u>Benefits Unsecured</u>. 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.

<u>Section 11.07</u>. <u>Severability</u>. 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.

<u>Section 11.08</u>. <u>Expanded Benefits</u>. 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,

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this Section 11.08 shall not apply to any benefits under the Plan that are not Grandfathered Amounts.

<u>Section 11.09</u>. <u>Plan Costs</u>. 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

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(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.

<u>Section 12.03</u>. <u>Special Retirement Provisions</u>. 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

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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.

<u>Section 12.05</u>. <u>Calculation of Offset</u>. 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:

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- (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 18th day of December, 2012.

NORTHROP GRUMMAN CORPORATION

By: <u>/s/ Christopher McGee</u> Christopher McGee Vice President, Compensation & Benefits

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APPENDIX A

Executive Buyback

<u>Section A.01</u>. <u>Introduction</u>. 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.

<u>Section A.02</u>. <u>Buy Back Offer</u>. 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.

<u>Section A.03</u>. <u>One-Time Opportunity</u>. 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.

<u>Section A.04</u>. <u>Payment</u>. 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.

<u>Section A.05</u>. <u>Refund of Buy Back Payment</u>. 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;

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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.

<u>Section A.06</u>. <u>Effective Date</u>. 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

<u>Section B.01</u>. <u>Retired Executives Rehired as Executives</u>. 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) <u>Monthly Payments</u>: 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) <u>Lump Sums</u>: For an Executive who received a lump sum Executive Pension Supplement and who is Retirement Eligible at the time of subsequent actual retirement:

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(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.

<u>Section B.02</u>. 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.

<u>Section B.03</u>. <u>Retired Executives Rehired in Non-Executive Positions</u>. 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:

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(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.

<u>Section B.04</u>. <u>Events That Span Westinghouse Acquisition</u>. 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.

<u>Section B.05</u>. <u>Breaks Spanning March 1, 1996</u>. 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.

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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.

<u>Section C.03</u>. <u>Coordination of Pre and Post-Acquisition Benefits</u>. 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.

<u>Section C.04</u>. <u>No Duplication of Benefits</u>. 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.

<u>Section D.01</u>. <u>Election</u>. 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. <u>2005 Commencements</u>. 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) <u>Key Employees</u>. 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) <u>Lump Sum Option</u>. 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),

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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, 2008

<u>Section E.01</u>. <u>Time of Distribution</u>. 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).

<u>Section E.03</u>. <u>Forms of Distribution</u>. 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 Payment Date. 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 his Payment Date 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 Payment Date 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

<u>Section E.04</u>. <u>Death</u>. 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

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is properly registered with the Company in accordance with procedures established by the Company.

<u>Section E.05</u>. <u>Actuarial Assumptions</u>. 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) <u>Post-2007 Separations</u>. 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) <u>Pre-2008 Separations</u>. 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 that January 1, 2008.

(c) <u>Conflicts of Interest</u>. 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) <u>Present Value Calculation</u>. 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.

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<u>Section E.07</u>. <u>Effect of Early Taxation</u>. 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.

<u>Section E.08</u>. <u>Permitted Delays</u>. 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.

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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.

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NORTHROP GRUMMAN

DEFERRED COMPENSATION PLAN

(Amended and Restated Effective as of January 1, 2013)

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NORTHROP GRUMMAN DEFERRED COMPENSATION PLAN (Amended and Restated Effective as of January 1, 2013)

The Northrop Grumman Deferred Compensation Plan (the "Plan") was last amended and restated effective as of January 1, 2012. This restatement amends that version of the Plan, and is effective January 1, 2013. This restatement includes changes that apply to amounts earned and vested under the Plan prior to 2005.

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.

credit.

(a) "Account" shall mean the recordkeeping account set up for each Participant to keep track of amounts to his or her

"Administrative Committee" means the committee in charge of Plan administration, as described in Article VII. (b)

414(b) or (c).

(c) "Affiliated Companies" shall mean the Company and any entity affiliated with the Company under Code sections

(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) "Beneficiary" or "Beneficiaries" shall mean the person or persons, including a trustee, personal representative or other fiduciary, last designated in writing by a

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Participant in accordance with procedures established by the Administrative Committee to receive the benefits specified hereunder in the event of the Participant's death.

Committee.

(1) No Beneficiary designation shall become effective until it is filed with the Administrative

(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.

(3) 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 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. Effective January 1, 2007, a Participant will automatically revoke a designation of a spouse as primary beneficiary upon the dissolution of their marriage.

(4) 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 is 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.

(5) 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.

(f) "Board" shall mean the Board of Directors of the Company.

(g) "Bonuses" shall mean the bonuses earned under the Company's formal incentive plans, as defined by the Administrative Committee, and payable while a Participant is an Employee.

(h) "Code" shall mean the Internal Revenue Code of 1986, as amended.

(i) "Committees" shall mean the Committees appointed by the Board to administer the Plan and investments in accordance with Article VII.

(j) "Company" shall mean Northrop Grumman Corporation and any successor.

(k) "Compensation" shall be Base Salary plus Bonuses. However, any payment authorized by the Compensation and Management Development 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, shall not be treated as Compensation. Further, any award payment under the Northrop Grumman Long-Term Incentive Cash Plan shall not be treated as Compensation.

(l) "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.

(m) "Early Distribution" shall mean an election by a Participant in accordance with Appendix Section B.2 to receive a withdrawal of amounts from his or her Account prior to the time at which such Participant would otherwise be entitled to such amounts.

(n) "Eligible Employee" shall mean any Employee who meets the following conditions:

(1) he or she is initially treated by the Affiliated Companies as an Employee and not as an independent

contractor; and

(2) he or she meets the eligibility criteria established by the Administrative Committee.

The eligibility criteria established by the Administrative Committee will include, but not be limited to, 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.

(o) "Employee" shall mean any common law employee of the Affiliated Companies.

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(p) "ERISA" shall mean the Employee Retirement Income Security Act of 1974, as it may be amended from time to

time.

(q) "Hardship Distribution" shall mean a severe financial hardship to the Participant resulting from a sudden and unexpected illness or accident of the Participant or of his or her dependent (as defined in Section 152(a) of the Code), loss of a Participant's property due to casualty, or other similar or extraordinary and unforseeable circumstances arising as a result of events beyond the control of the Participant. The circumstances that would constitute an unforseeable emergency will depend upon the facts of each case, but, in any case, a Hardship Distribution may not be made to the extent that such hardship is or may be relieved (i) through reimbursement or compensation by insurance or otherwise, (ii) by liquidation of the Participant's assets, to the extent the liquidation of assets would not itself cause severe financial hardship, or (iii) by cessation of deferrals under this Plan.

(r) "Initial Election Period" shall mean:

(1) in the case of a newly hired Employee who is entitled to participate under Article II, the 30-day period following the date on which the Employee first becomes an Eligible Employee; and

(2) in the case of any other Employee who becomes an Eligible Employee and is entitled to participate under Article II, the next Open Enrollment Period.

VII.

(s) "Investment Committee" means the committee in charge of investment aspects of the Plan, as described in Article

(t) "Key Employee" means 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 Participants 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.

(u) "Open Enrollment Period" means the period each Plan Year designated by the Administrative Committee for electing deferrals for the following Plan Year.

(v) "Participant" shall mean any Eligible Employee who participates in this Plan in accordance with Article II.

(w) "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;

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(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; and

(3) for distributions with a scheduled withdrawal date under Section B.1(c), a date after the December 31 prior to the elected payment year,

the exact date in each case to be determined by the Administrative Committee to allow time for administrative processing.

- (x) "Plan" shall be the Northrop Grumman Deferred Compensation Plan.
- (y) "Plan Year" shall be the calendar year.
- (z) "Retirement" shall mean termination of employment with the Affiliated Companies after reaching age 55.

(aa) "Scheduled Withdrawal Date" shall mean the distribution date elected by the Participant for an in-service withdrawal of amounts deferred in a given Plan Year, and earnings and losses attributable thereto, as set forth on the election form for such Plan Year.

(bb) "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.

(b) Anyone who becomes an Eligible Employee will be entitled to become a Participant during his or her Initial Election Period or any subsequent Open Enrollment Period.

(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.

2.3 <u>Cessation of Eligibility</u>

If the Administrative Committee determines or reasonably believes that a Participant has ceased to be a management or highly compensated employee within the meaning of ERISA Title I, the Participant will no longer be able to make elections to defer compensation under the Plan.

If an Eligible Employee receives a distribution under Appendix Section B.2, the Employee will not be permitted to defer amounts under the Plan for the two Plan Years following the year of distribution.

ARTICLE III

DEFERRAL ELECTIONS

3.1 <u>Elections to Defer Compensation</u>

(a) <u>Initial Elections</u>. Each Participant may elect to defer an amount of Compensation by filing an election with the Administrative Committee no later than the last day of his or her Initial Election Period. If the election is made pursuant to Section 1.1(r)(1), it will apply for the remainder of the Plan Year. Otherwise, the election will apply for the following Plan Year.

(b) <u>Subsequent Elections</u>. A Participant may elect to defer Compensation earned in subsequent Plan Years by filing a new election in the Open Enrollment Period for each subsequent Plan Year. An election to participate for a Plan Year is irrevocable.

(c) <u>General Rules for all Elections</u>. The Administrative Committee may establish procedures for elections and set limits and other requirements on the amount of Compensation that may be deferred. The Administrative Committee may change these rules from time to time. Deferral elections shall address distribution of the deferred amounts as described in Section 6.1.

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(d) <u>Committee Rules</u>. All elections must be made in accordance with 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.

(e) <u>Cancellation of Election</u>. If a Participant becomes disabled (as defined under Code Section 409A) or obtains a distribution on account of an Unforeseeable Emergency under Section 6.2 during a Plan Year, his deferral election for such Plan Year shall be cancelled.

3.2 <u>Crediting of Deferrals</u>

(a) <u>In General</u>. 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.

(b) <u>Cessation of Crediting</u>. Effective January 1, 2011, no further amounts will be deferred under the Plan and credited to Participant Accounts.

3.3 Investment Elections

(a) The Investment Committee will establish a number of different types of investments for the Plan. The Investment Committee may change the investments 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 types of investment and may change their elections from time to time.

(c) Although the Participants may designate the deemed investment of their Accounts, the Investment Committee is not bound to invest any actual amounts in any particular investment. The Investment Committee will select from time to time, in its sole and absolute discretion, commercially available investments of each of the types offered. Any investments actually made remain the property of the Affiliated Companies (or the rabbi trust under Section 4.2) and are not Plan assets.

(d) Selections of the types 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 which may include, among other matters, limitations on the amounts which may be transferred and procedures for electing transfers.

(2) The Administrative Committee may prescribe rules for valuing Accounts for purposes of transfers. Such rules may, in the Administrative Committee's discretion, use averaging methods to determine values and accrue estimated expenses.

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(3) The Administrative Committee may prescribe the periods and frequency with which Participants may change deemed investment elections and make transfers.

Participants.

(4) The Administrative Committee may change its rules from time to time and without prior notice to

(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.

3.4 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 AND TRUST FUNDING

4.1 Accounts

The Administrative Committee shall establish and maintain an Account for each Participant under the Plan. Each Participant's Account shall be further divided into separate subaccounts ("investment subaccounts"), each of which corresponds to an investment type elected by the Participant pursuant to Section 3.3. A Participant's Account shall be credited as follows:

(a) The Administrative Committee shall credit the investment subaccounts of the Participant's Account with an amount equal to Compensation deferred by the Participant in accordance with the Participant's election under Section 3.3; that is, the portion of the Participant's deferred Compensation that the Participant has elected to be deemed invested in a certain type of investment shall be credited to the investment subaccount corresponding to that investment type.

(b) The investment subaccounts of Participants' Accounts will be credited with earnings or losses based on the earnings or losses of the corresponding investments selected by the Participant and valued in accordance with the rules and procedures of the Administrative Committee.

(1) 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.

(2) The Administrative Committee may use averaging methods to determine values and accrue estimated

expenses.



(3) The Administrative Committee may change its valuation rules and procedures from time to time and without prior notice to Participants.

4.2 <u>Use of a Trust</u>

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

5.1 In General

A Participant's interest in his or her Account will be nonforfeitable.

5.2 Exceptions

The following exceptions apply to the vesting rule:

- (a) Forfeitures on account of a lost payee. See Section 6.4.
- (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.
- (f) Forfeitures resulting from early withdrawals. See Section B.2.

ARTICLE VI

DISTRIBUTIONS

6.1 <u>Distribution of Deferred Compensation Contributions</u>

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) <u>Separate Distribution Election</u>. A Participant must make a separate distribution election for each year beginning with the 2005 deferral election. A Participant generally makes a distribution election at the same time the Participant makes the deferral election, i.e., during the Open Enrollment Period. The Participant will specify in the distribution election whether the amounts deferred for the year (and earnings thereon) will be paid upon a Separation from Service or upon a specified date, and the method of distribution for such amounts. Even if a Participant elects to have a year's deferrals payable upon a specified date, he shall also specify a method of distribution for payments upon a Separation from Service.

(b) <u>Distribution Upon Separation from Service</u>. A Participant may elect on a deferral form to have the portion of his Account related to amounts deferred under the deferral form (and earnings thereon) distributed in a lump sum or in quarterly installments over a period of 5, 10, or 15 years. If a Participant does not elect a method for distribution for a deferred amount, the amount will be distributed in quarterly installments over 10 years. Notwithstanding the foregoing, if a Participant's Account balance is \$50,000 or less at the time the Participant Separates from Service or if the Separation from Service occurs before age 55 for reasons other than death or disability (as defined under Code section 409A), the deferred amount will be distributed in a lump sum payment.

A lump sum payment shall be made in the second month following the month of Separation from Service. Installment payments shall commence as of the January, April, July, or October that next follows the month of Separation from Service and that is not the month immediately following the month of Separation from Service. For example, if a Separation from Service occurs in January, payments begin in April. If a Separation from Service occurs in March, payments begin in July.

Notwithstanding the foregoing, 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 lump sum payment that would otherwise be made during this period of delay shall be paid on the first day of the seventh month following the Participant's Separation from Service (or, if earlier, the first day of the month after the Participant's death). Any series of installment payments impacted by this delay shall begin as of the January, April, July, or October coincident with or next following the Participant's Separation from Service. The initial payment of such an installment series shall include any installment payments that would have otherwise been made during the period of delay.

(c) <u>Distribution as of Specified Date</u>. A Participant may elect on a deferral form to have the portion of his Account related to amounts deferred under the deferral form (and earnings thereon) paid to the Participant as of a January that is at least two years after the year of deferral. The Participant may elect to receive such amount as a lump sum or in quarterly installments over 2 to 5 years. If the amount is \$25,000 or less at the specified date for distribution, the Participant will receive a lump sum distribution of the amount regardless of his elected

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distribution form. If the Participant Separates from Service before the specified date or while receiving a distribution of an amount under this Section 6.1(c), such portion of the Account will be distributed in accordance with the Participant's distribution election for a Separation from Service made at the time of the Participant's deferral election.

(d) <u>Changes in Time or Form of Distribution</u>. A Participant may make up to two subsequent elections to change the time or form of a distribution for any year's deferral. Such an election, however, shall be effective only if the following conditions are satisfied:

made;

(1) The election may not take effect until at least twelve (12) months after the date on which the election is

(2) In the case of an election to change the time or form of the distribution under Sections 6.1(b) or (c), a distribution may not be made earlier than at least five (5) years from the date the distribution would have otherwise been made; and

(3) In the case of an election to change the time or form of a distribution under Section 6.1(c), the election must be made at least twelve (12) months before the date the distribution is scheduled to be paid.

(e) <u>Effect of Taxation</u>. 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.

(f) <u>Permitted Delays</u>. 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:

(1) The Company's deduction with respect to such payment would be eliminated by application of Code section 162(m); or

(2) The making of the payment would violate Federal securities laws or other applicable law;

provided, that any payment delayed pursuant to this Section 6.1(f) shall be paid in accordance with Code section 409A.

6.2 <u>Withdrawals for Unforeseeable Emergency</u>

A Participant may withdraw all or any portion of his Account balance for an Unforeseeable Emergency. The amounts distributed with respect to an Unforeseeable Emergency may not exceed the amounts necessary to satisfy such Unforeseeable Emergency plus amounts necessary to pay taxes reasonably anticipated as a result of the distribution, after taking into account the extent to which such hardship is or may be relieved through reimbursement or compensation by insurance or otherwise or by liquidation of the Participant's assets (to the extent

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the liquidation of such assets would not itself cause severe financial hardship) or by cessation of deferrals under the Plan. "Unforeseeable Emergency" means for this purpose a severe financial hardship to a Participant resulting from an illness or accident of the Participant, the Participant's spouse, or a dependent (as defined in Code section 152(a)) of the Participant, loss of the Participant's property due to casualty, or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Participant.

6.3 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 which has been issued by the Plan. Otherwise, payment of the amount will be made to the Participant's Beneficiary.

6.4 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, the Participant or Beneficiary later claims such benefit, such benefit shall be reinstated without interest or earnings for the forfeiture period.

6.5 <u>Committee Rules</u>

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 <u>Committees</u>

(a) An Administrative Committee of one or more persons, shall be appointed by, and serve at the pleasure of, the Chairman and Chief Executive Officer. The number of members comprising the Administrative Committee shall be determined by the Chairman, President, and Chief Executive Officer, who may from time to time vary the number of members. A member of the Administrative Committee may resign by delivering a written notice of resignation to the Chairman, President, and Chief Executive Officer may remove any member by delivering a certified copy of its resolution of removal to such member. Vacancies in the membership of the Administrative Committee shall be filled promptly by the Chairman, President, and Chief Executive Officer.

(b) An Investment Committee of one or more persons, shall be appointed by, and serve at the pleasure of, the Board. The number of members comprising the Investment

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Committee shall be determined by the Board, who 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 <u>Committee Action</u>

Each Committee shall act at meetings by affirmative vote of a majority of the members of that Committee. Any action permitted to be taken at a meeting may be taken without a meeting if, prior to such action, a written consent to the action is signed by all members of the Committee and such written consent is filed with the minutes of the proceedings of the Committee. 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 of a Committee, or any other member or members of each Committee designated by the chairman of the Committee, may execute any certificate or other written direction on behalf of the Committee of which he or she is a member.

7.3 <u>Powers and Duties of the Administrative Committee</u>

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;
- (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

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(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 <u>Construction and Interpretation</u>

The Administrative Committee shall have full discretion to construe and interpret the terms and provisions of this Plan 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 <u>Information</u>

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 which cause termination of their participation in this Plan, and such other pertinent facts as the Committees may require.

7.7 <u>Committee Compensation, Expenses and Indemnity</u>

(a) The members of the Committees shall serve without compensation for their services hereunder.

(b) The Committees are authorized to employ such 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 <u>Disputes</u>

The Company's standardized "Northrop Grumman Nonqualified Retirement Plans Claims and Appeals Procedures" shall apply in handling claims and appeals under the 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 <u>Restriction Against Assignment</u>

(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.

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(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 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 <u>Restriction Against Double Payment</u>

If a court orders an assignment of benefits despite the previous Section, 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 <u>Withholding</u>

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 <u>Amendment, Modification, Suspension or Termination</u>

The Administrative Committee may amend, modify, suspend or terminate the Plan in whole or in part, except that no amendment, modification, suspension or termination may reduce a Participant's Account balance below its dollar value immediately prior to the amendment. The preceding sentence is not intended to protect Participants against investment losses. Upon

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termination of the Plan, distribution of balances in Accounts shall be made to Participants and Beneficiaries in the manner and as 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 <u>Governing Law</u>

To the extent not preempted by ERISA, this Plan shall be construed, governed and administered in accordance with the laws of Delaware.

8.7 <u>Receipt or Release</u>

Any payment to a Participant or the Participant's Beneficiary in accordance with the provisions of the Plan shall, to the extent thereof, be in full satisfaction of all claims against the Committees and the Affiliated Companies. The Administrative Committee may require such Participant or Beneficiary, 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.

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8.11 <u>2001 Reorganization</u>

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

(e) <u>Litton Acquisition Date</u>. 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.

8.12 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.

* * *

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IN WITNESS WHEREOF, this Amendment and Restatement is hereby executed by a duly authorized officer on this 18th day of December, 2012.

NORTHROP GRUMMAN CORPORATION

By: <u>/s/ Christopher McGee</u> Christopher McGee Vice President, Compensation & Benefits

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.

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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 prior to 2005 (and earnings thereon) are exempt from the requirements of Code section 409A and shall be made in accordance with the Plan terms as in effect on December 31, 2004 and as summarized in the following provisions.

B.1 Distribution of Contributions

(a) <u>Distributions Upon Early Termination</u>

(1) <u>Voluntary Termination</u>. 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) <u>Involuntary Termination</u>. 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 installments over a 5, 10 or 15-year period, 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 requires.

(b) <u>Distribution After Retirement, Disability or Death</u>. 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.

(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:

- (A) A lump sum distribution on the Participant's Payment Date.
- (B) Quarterly installments over 5 years beginning on the Participant's Payment Date.
- (C) Quarterly installments over 10 years beginning on the Participant's Payment Date.
- (D) Quarterly installments over 15 years beginning on the Participant's Payment Date.

-B 1-

(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.

(c) <u>Distribution With Scheduled Withdrawal Date</u>. A Participant who has elected a Scheduled Withdrawal Date for a distribution while still in the employ of the Affiliated Companies, will receive the designated portion of his or her Account as follows:

(1) A Participant's Scheduled Withdrawal Date can be no earlier than two years from the last day of the Plan Year for which the deferrals of Compensation are made.

(2) A Participant may extend the Scheduled Withdrawal Date for any Plan Year, provided such extension occurs at least one year before the Scheduled Withdrawal Date and is for a period of not less than two years from the Scheduled Withdrawal Date. The Participant shall have the right to twice modify any Scheduled Withdrawal Date.

(3) Payments under this subsection may be in the form of a lump sum, or 2, 3, 4 or 5-year quarterly installments. The default form will be a lump sum. If the Account balance to be distributed is \$25,000 or less, payment will automatically be made in a lump sum. Payments will commence on the Scheduled Withdrawal Date.

(4) In the event a Participant terminates employment with the Affiliated Companies prior to the commencement or completion of a distribution under this subsection, the portion of the Participant's Account associated with a Scheduled Withdrawal Date which has not been distributed prior to such termination shall be distributed in accordance with Section B.1(a) and (b) along with the remainder of the Account.

B.2 Early Non-Scheduled Distributions

A Participant shall be permitted to elect an Early Distribution from his or her Account prior to a Payment Date under Section B.1, subject to the following restrictions:

-В 2-

(a) The election to take an Early Distribution shall be made by filing a form provided by and filed with the Administrative Committee prior to the end of any calendar month.

(b) The amount of the Early Distribution shall equal up to 90% of his or her Account balance.

(c) The amount described in subsection (b) above shall be paid in a lump sum as of a date after the receipt by the Administrative Committee of the request for a withdrawal under this Section. The exact date will be determined by the Administrative Committee to allow time for administrative processing.

(d) A Participant shall forfeit 10% of the amount of the requested distribution. The Affiliated Companies shall have no obligation to the Participant or his or her Beneficiary with respect to such forfeited amount.

(1) <u>Example 1</u>: A Participant requests a distribution of 100% of the Account. The Participant receives 90%. The amount forfeited is 10% of the Account.

(2) <u>Example 2</u>: A Participant requests a distribution of 50% of the Account. The Participant receives 45%. The amount forfeited is 5% of the Account.

(e) All distributions shall be made on a pro rata basis from among a Participant's investment subaccounts.

B.3 <u>Hardship Distribution</u>

A Participant shall be permitted to elect a Hardship Distribution from his or her Account prior to a Payment Date under Section B.1, subject to the following restrictions:

(a) The election to take a Hardship Distribution shall be made by filing a form provided by and filed with the Administrative Committee prior to the end of any calendar month.

(b) The Administrative Committee shall have made a determination that the requested distribution constitutes a Hardship Distribution.

(c) The amount determined by the Administrative Committee as a Hardship Distribution shall be paid in a lump sum as of a date after the approval by the Administrative Committee of the request for a withdrawal under this Section. The exact date will be determined by the Administrative Committee to allow time for administrative processing.

B.4 Plan Termination

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.

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APPENDIX C

<u>TRANSFER OF LIABILITIES –</u> <u>NORTHROP GRUMMAN EXECUTIVE DEFERRED COMPENSATION PLAN</u>

C.1 Background

Effective March 1, 2001, all liabilities under the Northrop Grumman Executive Deferred Compensation Plan other than the Estate Enhancement Program Account, were transferred to this Plan. This Appendix describes the treatment of those liabilities (plus earnings) ("Transferred Liabilities") and the Participant to whom those liabilities are owed ("Transferred Participant").

C.2 Treatment of Transferred Liabilities

The Transferred Liabilities will generally be treated under the Plan like Compensation deferred in accordance with Article III.

C.3 Investments

The Transferred Participant may make investment elections for the Transferred Liabilities in accordance with Section 3.3. Section 3.4 will also apply.

C.4 Distributions

Distributions of amounts corresponding to the Transferred Liabilities will generally be made in accordance with the provisions of Appendix B. The following exceptions and special rules apply:

(a) <u>Section B.1</u>

(1) For purposes of Sections B.1(a)(2) and B.1(b)(1), the Transferred Participant will be deemed to have made an election of 5 or 10-year installments corresponding to his elections of 5 or 10-year installments under Section 6.9(b)(2) of the Northrop Grumman Executive Deferred Compensation Plan.

(2) The Transferred Participant may utilize Section B.1(b)(2) to vary the form of his distribution.

(3) Distributions under Section B.1(c) are not available.

(b) <u>Section B.2</u>. The Early Non-Scheduled Distribution election is available. The Transferred Liabilities will be aggregated with any other amounts in the Transferred Participant's Account for purposes of distributions under Section B.2.

(c) <u>Sections 6.3-6.6</u>. These Sections are fully applicable.

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C.5 Other Provisions

The Transferred Liabilities and the Transferred Participant will be fully subject to the provisions of Articles IV, V, VII and VIII.

APPENDIX D

<u>TRANSFER OF LIABILITIES –</u> AEROJET-GENERAL LIABILITIES

D.1 Background

(a) Effective as of the Closing Date specified in the April 19, 2001 Asset Purchase Agreement by and Between Aerojet-General Corporation and Northrop Grumman Systems Corporation (the "APA"), certain liabilities ("Transferred Liabilities") under the Benefits Restoration Plan for Salaried Employees of GenCorp Inc. and Certain Subsidiary Companies and the GenCorp Inc. and Participating Subsidiaries Deferred Bonus Plan were transferred to this Plan.

(b) The transfer took place pursuant to section 10.6 of the APA, under which Northrop Grumman acquired the Azusa and Colorado Operations units from Aerojet-General Corporation. That section reads:

* * * * *

10.6 Unfunded Deferred Compensation

(a) Subject to legal requirements for employee acquiescence, as of the effective time of the Closing, the Purchaser shall assume any and all obligations of the Seller to pay any and all unfunded deferred compensation as set forth on Schedule 10.6 for all Transferring Employees, provided such benefits are adequately reflected on the Balance Sheet.

(b) The Seller shall retain any and all legal obligation to pay any and all unfunded deferred compensation for all Aerojet Employees that are not Transferring Employees.

* * * * *

(c) This Appendix is intended to effectuate the assumption of certain of the liabilities contemplated by section 10.6 of the APA. It describes the treatment of those liabilities (plus earnings) and the Participants to whom those liabilities are owed ("Transferred Participants").

(d) The only liabilities assumed by this Plan are:

(1) those from the GenCorp Inc. and Participating Subsidiaries Deferred Bonus Plan, and

-D 1-

(2) those liabilities under the Benefits Restoration Plan for Salaried Employees of GenCorp Inc. and Certain Subsidiary Companies which represent supplements with respect to an Aerojet defined contribution plan.

No liabilities are assumed which represent supplements with respect to an Aerojet defined benefit plan.

(e) The assumed liabilities will be represented by starting Account balances for the Transferred Participants, determined in the discretion of the Administrative Committee.

D.2 Treatment of Transferred Liabilities

The Transferred Liabilities will generally be treated under the Plan like Compensation deferred in accordance with Article III.

D.3 Investments

The Transferred Participants may make investment elections for the Transferred Liabilities in accordance with Section 3.3. Section 3.4 will also apply.

D.4 Distributions

Distributions of amounts corresponding to the Transferred Liabilities will generally be made in accordance with the provisions of Appendix B. The following exceptions and special rules apply:

(a) Section B.1

(1) For purposes of Sections B.1(a)(2) and B.1(b)(1), the Transferred Participants will be deemed to have made an election of 10-year installments.

(2) The Transferred Participants may utilize Section B.1(b)(2) to vary the form of their distributions.

(3) Distributions under Section B.1(c) are not available.

(b) <u>Section B.2</u>. The Early Non-Scheduled Distribution election is available. The Transferred Liabilities will be aggregated with any other amounts in the Transferred Participants' Accounts for purposes of distributions under Section B.2.

(c) <u>Sections 6.3-6.6</u>. These Sections are fully applicable.

D.5 Other Provisions

The Transferred Liabilities and the Transferred Participants will be fully subject to the provisions of Articles IV, V, VII and VIII.

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APPENDIX E

TRANSFER OF LIABILITIES – TASC, INC. SUPPLEMENTAL RETIREMENT PLAN

E.1 Background

(a) Effective as of the TASC Merger Date, all liabilities under the TASC, Inc. Supplemental Retirement Plan were transferred to this Plan. This Appendix describes the treatment of those liabilities (plus earnings) ("Transferred Liabilities") and the Participant to whom those liabilities are owed ("Transferred Participant").

(b) The "TASC Merger Date" is March 28, 2003 or such other date that the Northrop Grumman Director of Benefits Administration and Services determines is feasible. If the Northrop Grumman Director of Benefits Administration and Services determines that March 28, 2003 is not feasible, he shall identify in writing, before March 28, 2003, a date that is feasible.

E.2 Treatment of Transferred Liabilities

The Transferred Liabilities will generally be treated under the Plan like Compensation deferred in accordance with Article III.

E.3 Investments

The Transferred Participant may make investment elections for the Transferred Liabilities in accordance with Section 3.3. Section 3.4 will also apply.

E.4 Distributions

Distributions of amounts corresponding to the Transferred Liabilities will generally be made in accordance with the provisions of Appendix B.

E.5 Other Provisions

The Transferred Liabilities and the Transferred Participant will be fully subject to the provisions of Articles IV, V, VII and VIII.

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APPENDIX F

2008 TRANSITION RELIEF

Pursuant to transition rules under Code section 409A, during a specified period in 2008, Participants who had previously elected in 2008 to defer amounts that would otherwise be payable in 2009 may make a new election with respect to such amounts. Such an election must provide for a lower deferral percentage for each compensation category than the originally elected percentage. And if a Participant makes such an election, the Participant may also make a new distribution election (in accordance with the Plan's distribution rules in Section 6.1) for such amounts.

APPENDIX G

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.

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NORTHROP GRUMMAN SAVINGS EXCESS PLAN

(Amended and Restated Effective as of January 1, 2013)

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INTRODUCTION

The Northrop Grumman Savings Excess Plan (the "Plan") was last amended and restated effective as of November 9, 2012. This restatement amends that version of the Plan, and is effective January 1, 2013 and includes changes that apply to 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.

credit.

(a) "Account" shall mean the recordkeeping account set up for each Participant to keep track of amounts to his or her

"Administrative Committee" means the committee in charge of Plan administration, as described in Article VII. (b)

414(b) or (c).

(c) "Affiliated Companies" shall mean the Company and any entity affiliated with the Company under Code sections

(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 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 is 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.

(1) "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 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 Participants 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.

(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).

(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 <u>In General</u>

(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 <u>Elections to Defer Eligible Compensation</u>

(a) <u>Timing</u>. 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) <u>Election Rules</u>. 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 75%, 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) <u>Cancellation of Election</u>. 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 <u>Contribution Amounts</u>

(a) <u>Participant Contributions</u>. 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) <u>Company Contributions</u>. The Company will make Company Contributions to a Participant's Account as provided in (1), (2) and (3) below.

(1) <u>Matching Contributions</u>. 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) <u>RAC Contributions</u>. 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.
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(iii) Five percent if age 50 or older.

(3) <u>Make-Up Contributions for Contribution Limitation</u>. 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.

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) 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) will be credited to Accounts as soon as practicable after each Plan Year.

3.4 <u>Maximum Contributions</u>

Effective January 1, 2011, the total amount of contributions under Sections 3.2(a) and (b) made to the Plan on behalf of each Corporate Policy Council member ("CPC Participant") shall not exceed \$5 million (the "Lifetime Cap"). The following items will not count toward the Lifetime Cap: (a) investment gains or earnings, and (b) amounts originally contributed to other plans that have been or are merged into the Plan. Notwithstanding the foregoing, Company Contributions shall continue to be made to a CPC Participant's Account until the end of the Plan Year in which the CPC Participant reaches the Lifetime Cap, and any deferral election made by a CPC Participant that is irrevocable under Code section 409A on the date the Lifetime Cap is reached shall remain effective.

3.5 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.

3.6 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 <u>Valuation of Accounts</u>

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 <u>In General</u>

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:

(a) A RAC Participant shall become vested in his RAC Subaccount upon completing three years of service. 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 vested in his Company matching contributions under Section 3.2(b)(1) and (3) and earnings thereon upon completing three years of service. 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 <u>Distribution Rules for Non-RAC Amounts</u>

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) <u>Separate Distribution Election</u>. 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) <u>Distribution Upon Separation</u>. 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 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 is \$50,000 or less or the Participant is under age 55 at the time the Participant Separates from Service, the full 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) <u>Changes in Form of Distribution</u>. 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:

made; and

- (2) The distribution will be made exactly five (5) years from the date the distribution would have otherwise

(1) The election may not take effect until at least twelve (12) months after the date on which the election is

been made.

6.2 <u>Distribution Rules for RAC Subaccount</u>

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 <u>Permitted Delays</u>

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;

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(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 <u>Committee Rules</u>

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 <u>Committees</u>

(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 <u>Committee Action</u>

Each Committee shall act at meetings by affirmative vote of a majority of the members of that Committee. Any determination 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 <u>Powers and Duties of the Administrative Committee</u>

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 <u>Construction and Interpretation</u>

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 <u>Information</u>

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 <u>Committee Compensation, Expenses and Indemnity</u>

(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 <u>Unsecured General Creditor</u>

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 <u>Restriction Against Assignment</u>

(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.

Section.

(b) The actions considered exceptions to the vesting rule under Section 5.2 will not be treated as violations of this

(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 <u>Restriction Against Double Payment</u>

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 <u>Withholding</u>

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 <u>Governing Law</u>

To the extent not preempted by ERISA, this Plan shall be construed, governed and administered in accordance with the laws of Delaware.

8.7 <u>Receipt and Release</u>

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 18th day of December, 2012.

NORTHROP GRUMMAN CORPORATION

By: <u>/s/ Christopher McGee</u> Christopher McGee Vice President, Compensation & Benefits

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) <u>Distributions Upon Early Termination</u>.

(1) <u>Voluntary Termination</u>. 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) <u>Involuntary Termination</u>. 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) <u>Distribution After Retirement, Disability or Death</u>. 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

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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.

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APPENDIX C – MERGED PLANS

C.1 Plan Mergers

(a) <u>Merged Plans</u>. 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) <u>Accounts</u>. 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) <u>Table</u>.

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) <u>NG BEP Account and S & MS Deferred Compensation Account</u>. 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) <u>BDM Account</u>. 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) <u>Timing of Payment</u>: 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) <u>Form of Payment</u>: 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) <u>Death Benefits</u>: 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) <u>Committee Rules</u>: 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) <u>Payment Schedule</u>: 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) <u>Application to Trustee</u>: 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) <u>PRC EDCP Account</u>. 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) <u>Vesting</u>. All Participants are vested in their PRC EDCP Account balances in accordance with the vesting provisions of the PRC Plan.

(2) <u>Fixed Payment Dates; Termination of Employment</u>. 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 or 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) <u>Amount and Time of Payment</u>. 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) <u>Subsequent Deferral Elections</u>. 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) <u>Death Benefits</u>. 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) <u>Application to Trustee</u>. 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.

<u>APPENDIX D – COMMITTEES AND APPOINTMENTS</u>

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.

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NORTHROP GRUMMAN

OFFICERS RETIREMENT ACCOUNT CONTRIBUTION PLAN

(Amended and Restated Effective as of January 1, 2013)

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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, 2013, except as otherwise provided. This restatement amends the January 1, 2012 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

"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).

credit.

"<u>Beneficiary</u>" or "<u>Beneficiaries</u>" 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.

"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 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

(3) he or she is not otherwise designated as being ineligible to participate in the Plan.

(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 not otherwise designated as being ineligible to participate in the Plan.

"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 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 Participants 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.

"NGSP" means the Northrop Grumman Savings Plan.

"Participant" shall mean any Eligible Employee who participates in this Plan in accordance with Article II.

"<u>Plan</u>" 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

Plan.

The Administrative Committee shall establish and maintain a recordkeeping Account for each Participant under the

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 the same investment options as the Participant's RAC Subaccount in the Northrop Grumman Savings Excess Plan. If a Participant does not have such a RAC Subaccount, 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.

3.4 <u>Valuation of Accounts</u>

(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

A Participant shall become vested in his Account balance upon completing three years of service. 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). 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.

4.2 <u>Exceptions</u>

The following exceptions apply to the vesting rule:

- (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 <u>Permitted Delays</u>

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:

162(m); or

(a) The Company's deduction with respect to such payment would be eliminated by application of Code section

- (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 <u>Payments Not Received At Death</u>

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 <u>Committee Rules</u>

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 <u>Committees</u>

(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 <u>Committee Action</u>

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 <u>Powers and Duties of the Administrative Committee</u>

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 <u>Powers and Duties of the Investment Committee</u>

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 <u>Construction and Interpretation</u>

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 <u>Information</u>

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 <u>Committee Compensation, Expenses and Indemnity</u>

(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 <u>Claims</u>

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.

- Section.
- (b) The actions considered exceptions to the vesting rule under Section 4.2 will not be treated as violations of this

(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 <u>Restriction Against Double Payment</u>

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 <u>Withholding</u>

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 <u>Governing Law</u>

To the extent not preempted by ERISA, this Plan shall be construed, governed and administered in accordance with the laws of Delaware.

7.7 <u>Receipt and Release</u>

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 <u>Headings</u>

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 <u>In General</u>

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 <u>Determination of a Forfeiture Event</u>

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 <u>No Forfeiture Event for Certain Terminations after Change in Control</u>

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 <u>Amount of Forfeiture</u>

(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 <u>Application</u>

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 18th day of December,

2012.

NORTHROP GRUMMAN CORPORATION

By: <u>/s/ Christopher McGee</u> Christopher McGee Vice President, Compensation & Benefits

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.

A-1

NORTHROP GRUMMAN CORPORATION COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES

	Year Ended December 31										
\$ in millions		2012		2011		2010		2009		2008	
Earnings:											
Earnings from continuing operations before income taxes	\$	2,965	\$	3,083	\$	2,366	\$	2,070	\$	1,841	
Fixed Charges:											
Interest expense, including amortization of debt premium		212		221		269		269		271	
Portion of rental expenses on operating leases deemed to be											
representative of the interest factor		116		140		149		167		177	
Earnings from continuing operations before income taxes and fixed											
charges	\$	3,293	\$	3,444	\$	2,784	\$	2,506	\$	2,289	
Fixed Charges:	\$	328	\$	361	\$	418	\$	436	\$	448	
Ratio of earnings to fixed charges		10.0		9.5		6.7		5.7		5.1	

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 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

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 Form S-8; and Registration Statement No. 333-175818 on Form S-3; of our reports dated February 4, 2013, 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, 2012.

/s/ Deloitte & Touche LLP McLean, Virginia February 4, 2013

POWER OF ATTORNEY IN CONNECTION WITH THE

2012 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-infact (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, 2012 (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 4th day of February 2013.

/s/ Victor H. Fazio	Director
Victor H. Fazio	
/s/ Donald E. Felsinger	Director
Donald E. Felsinger	
/s/ Stephen E. Frank	Director
Stephen E. Frank	
/s/ Bruce S. Gordon	Director
Bruce S. Gordon	
/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/ Aulana L. Peters	Director
Aulana L. Peters	
/s/ Gary Roughead	Director
Gary Roughead	
/s/ Thomas M. Schoewe	Director
Thomas M. Schoewe	
/s/ Kevin W. Sharer	Director
Kevin W. Sharer	
	Chairman, Chief Executive Officer and President
/s/ Wesley G. Bush	(Principal Executive Officer)
Wesley G. Bush	
	Corporate Vice President and Chief Financial Officer
/s/ James F. Palmer	(Principal Financial Officer)
James F. Palmer	

EXHIBIT 31.1

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 4, 2013

/s/ Wesley G. Bush

Wesley G. Bush Chairman, Chief Executive Officer and President

EXHIBIT 31.2

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, James F. Palmer, 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 4, 2013

/s/ James F. Palmer

James F. Palmer Corporate Vice President and Chief Financial Officer

EXHIBIT 32.1

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, 2012, 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 4, 2013

/s/ Wesley G. Bush

Wesley G. Bush Chairman, Chief Executive Officer and President

EXHIBIT 32.2

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, 2012, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James F. Palmer, 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 4, 2013

/s/ James F. Palmer

James F. Palmer Corporate Vice President and Chief Financial Officer