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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Quarterly Period Ended March 31, 2011

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 1-16411

NORTHROP GRUMMAN CORPORATION
(Exact name of registrant as specified in its charter)

DELAWARE	**80-0640649**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

1840 Century Park East, Los Angeles, California 90067
www.northropgrumman.com
(Address of principal executive offices and internet site)

(310) 553-6262
(Registrant's telephone number, including area code)

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 for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
Yes ☒ No ☐

Indicate by check mark 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. (Check one):

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes ☐ No ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

As of April 25, 2011, 292,720,412 shares of common stock were outstanding.

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

$ in millions, except per share amounts	Three Months Ended March 31 **2011**	2010
Sales and Service Revenues		
Product sales	**$ 3,863**	$ 4,024
Service revenues	**2,871**	2,890
Total sales and service revenues	**6,734**	6,914
Cost of Sales and Service Revenues		
Cost of product sales	**2,842**	2,990
Cost of service revenues	**2,513**	2,621
General and administrative expenses	**568**	624
Operating income	**811**	679
Other (expense) income		
Interest expense	**(58)**	(77)
Other, net	**5**	7
Earnings from continuing operations before income taxes	**758**	609
Federal and foreign income taxes	**262**	199
Earnings from continuing operations	**496**	410
Earnings from discontinued operations, net of tax	**34**	59
Net earnings	**$ 530**	$ 469
Basic Earnings Per Share		
Continuing operations	**$ 1.70**	$ 1.36
Discontinued operations	**.12**	.19
Basic earnings per share	**$ 1.82**	$ 1.55
Weighted-average common shares outstanding, in millions	**291.8**	302.5
Diluted Earnings Per Share		
Continuing operations	**$ 1.67**	$ 1.34
Discontinued operations	**.12**	.19
Diluted earnings per share	**$ 1.79**	$ 1.53
Weighted-average diluted shares outstanding, in millions	**296.9**	306.1
Net earnings (from above)	**$ 530**	$ 469
Other comprehensive income		
Change in cumulative translation adjustment	**27**	(28)
Change in unrealized gain on marketable securities and cash flow hedges, net of tax	**(2)**	
Change in unamortized benefit plan costs, net of tax	**21**	40
Other comprehensive income, net of tax	**46**	12
Comprehensive income	**$ 576**	$ 481

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

NORTHROP GRUMMAN CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Unaudited)

$ in millions	**March 31, 2011**	December 31, 2010
Assets		
Cash and cash equivalents	**$ 4,019**	$ 3,701
Accounts receivable, net of progress payments	**3,563**	3,329
Inventoried costs, net of progress payments	**859**	896
Deferred tax assets	**417**	419
Prepaid expenses and other current assets	**213**	244
Assets of discontinued operations		5,212
Total current assets	**9,071**	13,801
Property, plant, and equipment, net of accumulated depreciation of $3,781 in 2011 and $3,712 in 2010	**3,046**	3,045
Goodwill	**12,376**	12,376
Other purchased intangibles, net of accumulated amortization of $1,622 in 2011 and $1,613 in 2010	**183**	192
Pension and post-retirement plan assets	**333**	320
Long-term deferred tax assets	**691**	722
Miscellaneous other assets	**1,090**	1,075
Total assets	**$ 26,790**	$ 31,531
Liabilities		
Notes payable to banks	**$ 16**	$ 10
Current portion of long-term debt	**23**	774
Trade accounts payable	**1,347**	1,573
Accrued employees' compensation	**944**	1,146
Advance payments and billings in excess of costs incurred	**1,899**	1,969
Other current liabilities	**1,932**	1,763
Liabilities of discontinued operations		2,792
Total current liabilities	**6,161**	10,027
Long-term debt, net of current portion	**3,939**	3,940
Pension and post-retirement plan liabilities	**3,097**	3,089
Other long-term liabilities	**916**	918
Total liabilities	**14,113**	17,974
Commitments and Contingencies (Note 11)		
Shareholders' Equity		
Common stock, $1 par value; 800,000,000 shares authorized; issued and outstanding: 2011 — 292,599,308; 2010 — 290,956,752	**293**	291
Paid-in capital	**5,934**	7,778
Retained earnings	**8,637**	8,245
Accumulated other comprehensive loss	**(2,187)**	(2,757)
Total shareholders' equity	**12,677**	13,557
Total liabilities and shareholders' equity	**$ 26,790**	$ 31,531

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

NORTHROP GRUMMAN CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

$ in millions	Three Months Ended March 31 **2011**	2010
Operating Activities		
Sources of Cash — Continuing Operations		
Cash received from customers		
Progress payments	**$ 1,035**	$ 902
Collections on billings	**5,427**	5,216
Other cash receipts	**7**	1
Total sources of cash — continuing operations	**6,469**	6,119
Uses of Cash — Continuing Operations		
Cash paid to suppliers and employees	**(6,202)**	(6,326)
Interest paid, net of interest received	**(96)**	(127)
Income taxes paid, net of refunds received	**(46)**	(111)
Excess tax benefits from stock-based compensation	**(9)**	(5)
Other cash payments	**(4)**	(2)
Total uses of cash — continuing operations	**(6,357)**	(6,571)
Cash provided by (used in) continuing operations	**112**	(452)
Cash used in discontinued operations	**(232)**	(79)
Net cash used in operating activities	**(120)**	(531)
Investing Activities		
Continuing Operations		
Additions to property, plant, and equipment	**(122)**	(103)
Payments for outsourcing contract costs and related software costs	**(1)**	(3)
Decrease in restricted cash	**31**	5
Contribution received from the spin-off of Shipbuilding business	**1,429**	
Other investing activities, net	**7**	(2)
Cash provided by (used in) investing activities by continuing operations	**1,344**	(103)
Cash used in investing activities by discontinued operations	**(63)**	(32)
Net cash provided by (used in) investing activities	**1,281**	(135)
Financing Activities		
Net borrowings under lines of credit	**5**	2
Payments of long-term debt	**(750)**	(89)
Proceeds from exercises of stock options and issuances of common stock	**43**	70
Dividends paid	**(137)**	(129)
Excess tax benefits from stock-based compensation	**9**	5
Common stock repurchases	**(13)**	(507)
Net cash used in financing activities	**(843)**	(648)
Increase (decrease) in cash and cash equivalents	**318**	(1,314)
Cash and cash equivalents, beginning of period	**3,701**	3,275
Cash and cash equivalents, end of period	**$ 4,019**	$ 1,961

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

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$ in millions	Three Months Ended March 31 **2011**	2010
Reconciliation of Net Earnings to Net Cash Used in Operating Activities		
Net earnings	**$ 530**	$ 469
Net earnings from discontinued operations	**(34)**	(59)
Adjustments to reconcile to net cash provided by (used in) operating activities		
Depreciation	**103**	99
Amortization of assets	**18**	30
Stock-based compensation	**33**	38
Excess tax benefits from stock-based compensation	**(9)**	(5)
(Increase) decrease in		
Accounts receivable, net	**(245)**	(713)
Inventoried costs, net	**30**	(87)
Prepaid expenses and other current assets	**(3)**	(3)
Increase (decrease) in		
Accounts payable and accruals	**(627)**	(455)
Deferred income taxes	**19**	12
Income taxes payable	**289**	163
Retiree benefits	**34**	85
Other non-cash transactions, net	**(26)**	(26)
Cash provided by (used in) continuing operations	**112**	(452)
Cash used in discontinued operations	**(232)**	(79)
Net cash used in operating activities	**$ (120)**	$ (531)
Non-Cash Investing and Financing Activities		
Capital expenditures accrued in accounts payable	**$ 20**	$ 10
Capital expenditures accrued in liabilities from discontinued operations	**$ 30**	$ 28

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

NORTHROP GRUMMAN CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(Unaudited)

	Three Months Ended March 31	
$ in millions, except per share	**2011**	2010
Common Stock		
At beginning of period	**$ 291**	$ 307
Common stock repurchased		(8)
Employee stock awards and options	**2**	2
At end of period	**293**	301
Paid-in Capital		
At beginning of period	**7,778**	8,657
Common stock repurchased	**(6)**	(477)
Employee stock awards and options	**49**	84
Spin-off of Shipbuilding business	**(1,887)**	
At end of period	**5,934**	8,264
Retained Earnings		
At beginning of period	**8,245**	6,737
Net earnings	**530**	469
Dividends declared	**(138)**	(129)
At end of period	**8,637**	7,077
Accumulated Other Comprehensive Loss		
At beginning of period	**(2,757)**	(3,014)
Other comprehensive income, net of tax	**46**	12
Spin-off of Shipbuilding business	**524**	
At end of period	**(2,187)**	(3,002)
Total shareholders' equity	**$ 12,677**	$ 12,640
Cash dividends declared per share	**$ .47**	$ .43

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

NORTHROP GRUMMAN CORPORATION

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

1. BASIS OF PRESENTATION

Principles of Consolidation – The unaudited condensed consolidated financial statements include the accounts of Northrop Grumman Corporation and its subsidiaries (Northrop Grumman or the company). All material intercompany accounts, transactions, and profits are eliminated in consolidation.

The accompanying unaudited condensed consolidated financial statements of the company have been prepared by management in accordance with the rules of the Securities and Exchange Commission (SEC). These statements include all adjustments of normal recurring nature considered necessary by management for a fair presentation of the condensed consolidated financial position, results of operations, and cash flows. The results reported in these financial statements are not necessarily indicative of results that may be expected for the entire year. These financial statements should be read in conjunction with the audited consolidated financial statements, including the notes thereto; contained in the company's Annual Report on Form 10-K for the year ended December 31, 2010.

The quarterly information is labeled using a calendar convention; that is, first quarter is consistently labeled as ending on March 31, second quarter as ending on June 30, and third quarter as ending on September 30. It is management'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 near these quarter-end dates in order to normalize the potentially disruptive effects of quarterly closings on business processes. The effects of this practice only exist within a reporting year.

Spin-off of Shipbuilding Segment – Effective as of March 31, 2011, the company completed the spin-off to its shareholders of Huntington Ingalls Industries, Inc. (HII), a wholly owned subsidiary. HII now operates the business that was previously the company's Shipbuilding business (Shipbuilding). The spin-off was the culmination of the company's strategic decision to explore strategic alternatives for Shipbuilding as it was determined to be in the best interests of shareholders, customers, and employees by allowing both the company and Shipbuilding to more effectively pursue their respective opportunities to maximize value. As a result of the spin-off, the assets, liabilities and results of operations for the Shipbuilding segment have been reclassified as discontinued operations for all periods presented. See Note 5 for further information.

Accounting Estimates – The accompanying unaudited condensed consolidated financial statements have been 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 on the basis of the most current and best available information and actual results could differ materially from those estimates.

Accumulated Other Comprehensive Loss – The components of accumulated other comprehensive loss are as follows:

$ in millions	**March 31, 2011**	December 31, 2010
Cumulative translation adjustment	**$ 27**	
Net unrealized gain on marketable securities and cash flow hedges, net of tax expense of $3 as of March 31, 2011, and December 31, 2010	**3**	$ 5
Unamortized benefit plan costs, net of tax benefit of $1,446 as of March 31, 2011, and $1,800 as of December 31, 2010	**(2,217)**	(2,762)
Total accumulated other comprehensive loss	**$ (2,187)**	$ (2,757)

The changes in the unamortized benefit plan costs, net of tax, were $21 million and $40 million for the three months ended March 31, 2011, and 2010, respectively, and are included in other comprehensive income in the

condensed consolidated statements of operations. As a result of the spin-off of Shipbuilding, the company reduced accumulated other comprehensive loss by $524 million as of March 31, 2011 for the after-tax actuarial loss amounts related to Shipbuilding pension and other post-retirement plan assets and liabilities. Unamortized benefit plan costs consist primarily of net after-tax actuarial loss amounts totaling $2,267 million and $2,771 million as of March 31, 2011, and December 31, 2010, respectively. Net actuarial gains or losses principally arise from gains or losses on plan assets due to variations in the fair market value of the underlying assets and changes in the benefit obligation due to changes in actuarial assumptions. Net actuarial gains or losses are amortized to expense 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.

2. ACCOUNTING STANDARDS UPDATES

Accounting Standards Updates Not Yet Effective

Accounting standards updates not effective until after March 31, 2011, are not expected to have a significant effect on the company's consolidated financial position or results of operations.

3. DIVIDENDS ON COMMON STOCK

Dividends on Common Stock – In May 2010, the company's board of directors approved an increase to the quarterly common stock dividend, from $0.43 per share to $0.47 per share, for shareholders of record as of June 1, 2010.

Subsequent Events – In April 2011, the company's board of directors approved an increase to the quarterly common stock dividend, from $0.47 per share to $0.50 per share, for shareholders of record as of May 31, 2011. Also in April 2011, the board of directors authorized an increase in the authorization under the company's share repurchase program that will raise the outstanding authorization to $4.0 billion.

4. EARNINGS PER SHARE

Basic Earnings Per Share – Basic earnings per share amounts from both continuing operations and discontinued operations are calculated by dividing the respective earnings by the weighted-average number of shares of common stock outstanding during each periods:

Diluted Earnings Per Share – Diluted earnings per share include the dilutive effect of stock options and other stock awards granted to employees under stock-based compensation plans. The dilutive effect of these securities totaled 5.1 million shares and 3.6 million shares for the three months ended March 31, 2011, and 2010, respectively. The weighted-average diluted shares outstanding for the three months ended March 31, 2011, and 2010, exclude anti-dilutive stock options to purchase approximately 2.8 million and 2.7 million shares, respectively, because such options have exercise prices in excess of the average market price of the company's common stock during the period.

Share Repurchases – The table below summarizes the company's share repurchases during the periods:

Repurchase Program Authorization Date	Amount Authorized (in millions)	Average Price Per Share[2]	Total Shares Retired (in millions)	Date Completed	Shares Repurchased (in millions) Three Months Ended March 31 2011	2010
December 19, 2007	$ 3,600	$59.82	60.2	August 2010		8.3
June 16, 2010[1]	2,000	60.10	4.1		0.1	
					0.1	8.3

(1) On June 16, 2010, the company's board of directors authorized a share repurchase program of up to $2 billion of the company's common stock. As of March 31, 2011, the company had $1.76 billion remaining under this authorization for share repurchases. See Note 3 for action taken by the board of directors in April 2011 to increase this authorization.

(2) Includes commissions paid and calculated as the average price paid per share under the respective repurchase program.

Share repurchases take place at management's discretion or under pre-established non-discretionary programs from time to time, depending on market conditions, in the open market, and in privately negotiated transactions. The company retires its common stock upon repurchase and has not made any purchases of common stock other than in connection with these publicly announced repurchase programs.

5. BUSINESS DISPOSITIONS

Spin-off of Shipbuilding Business – On March 31, 2011, the company completed the spin-off to its shareholders of Huntington Ingalls Industries (HII), a wholly owned subsidiary. HII will continue to operate the business that was previously the company's Shipbuilding segment prior to the spin-off. 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. 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 $1,200 million in senior notes and entered into a credit facility with third-party lenders that includes a $650 million revolver and a $575 million term loan. HII used a portion of the proceeds of the debt and credit facility to fund a $1,429 million cash contribution to the company.

Prior to the completion of the spin-off, the company and HII entered into a Separation and Distribution Agreement (SDA) dated March 29, 2011 and several other agreements that will govern the post-separation relationship. These agreements generally provide that each party will be 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. The agreements also describe the company's future commitments to provide HII with certain transition services for up to one year and the costs incurred for such services that will be reimbursed by HII.

In connection with the spin-off, the company incurred $23 million and $5 million of non-deductible transaction costs for the three months ended March 31, 2011 and 2010, respectively, which have been included in discontinued operations. The company has incurred total transaction costs to date in connection with the spin-off of approximately $55 million.

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 company's financials. NSTec's sales that were included in the company's consolidated sales and service revenues for the three months ended March 31, 2010 were $136 million.

In December 2009, the company sold its Advisory Services Division (ASD) for $1.65 billion in cash to an investor group led by General Atlantic, LLC, and affiliates of Kohlberg Kravis Roberts & Co. L.P., and recognized a gain of $15 million, net of taxes. During the three months ended March 31, 2010, an additional $7 million gain, net of taxes, was recorded to reflect the purchase price adjustment called for under the sale agreement. ASD was a business unit comprised of the assets and liabilities of TASC, Inc., its wholly-owned subsidiary TASC Services Corporation, and certain contracts carved out from other Northrop Grumman businesses also in the Information Systems segment that provide systems engineering technical assistance and other analysis and advisory services.

Discontinued Operations – Earnings for the Shipbuilding business and gains from previous divestitures, reported as discontinued operations, are presented in the following table:

	Three Months Ended March 31	
$ in millions	**2011**	2010
Sales and service revenues	**$ 1,646**	$ 1,718
Earnings from discontinued operations	**$ 59**	$ 83
Income tax expense	**26**	31
Earnings, net of tax	**33**	52
Gain on divestitures, net of tax expense of $1 and $4 as of March 31, 2011 and 2010, respectively	**1**	7
Earnings from discontinued operations, net of tax	**$ 34**	$ 59

The major classes of assets and liabilities included in discontinued operations for the Shipbuilding business are presented in the following table:

$ in millions	December 31, 2010
Assets	
Current assets	$ 1,315
Property, plant, and equipment, net	1,997
Goodwill	1,141
Other assets	759
Total assets of discontinued operations	$ 5,212
Liabilities	
Trade accounts payable	$ 274
Other current liabilities	955
Current liabilities	1,229
Long-term liabilities	1,563
Total liabilities of discontinued operations	$ 2,792

6. SEGMENT INFORMATION

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

NORTHROP GRUMMAN CORPORATION

The following table presents segment sales and service revenues for the three months ended March 31, 2011, and 2010:

	Three Months Ended March 31	
$ in millions	**2011**	2010
Sales and service revenues		
Aerospace Systems	**$ 2,736**	$ 2,696
Electronic Systems	**1,808**	1,882
Information Systems	**2,025**	2,064
Technical Services	**688**	763
Intersegment eliminations	**(523)**	(491)
Total sales and service revenues	**$ 6,734**	$ 6,914

The following table presents segment operating income reconciled to total operating income for the three months ended March 31, 2011, and 2010:

	Three Months Ended March 31	
$ in millions	**2011**	2010
Operating income		
Aerospace Systems	**$ 301**	$ 296
Electronic Systems	**237**	226
Information Systems	**194**	183
Technical Services	**54**	49
Intersegment eliminations	**(65)**	(48)
Total segment operating income	**721**	706
Non-segment factors affecting operating income		
Unallocated corporate expenses	**(10)**	(25)
Net pension adjustment	**103**	2
Royalty income adjustment	**(3)**	(4)
Total operating income	**$ 811**	$ 679

Unallocated Corporate Expenses – Unallocated corporate expenses generally include the portion of corporate expenses not considered allowable or allocable under applicable United States (U.S.) Government Cost Accounting Standards (CAS) regulations and the Federal Acquisition Regulation, and therefore not allocated to the segments, for costs related to management and administration, legal, environmental, certain compensation costs and retiree benefits, and other expenses.

Net Pension Adjustment – The net pension adjustment reflects the difference between pension expense determined in accordance with GAAP and pension expense allocated to the operating segments determined in accordance with CAS.

Royalty Income Adjustment – Royalty income is included in segment operating income and reclassified to other income for financial reporting purposes.

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7. INCOME TAXES

The company's effective tax rates on income from continuing operations were 34.6 percent and 32.7 percent for the three months ended March 31, 2011, and 2010, respectively. For 2010, the company's effective tax rates differ from the statutory federal rate primarily due to manufacturing deductions.

The company recognizes accrued interest and penalties related to uncertain tax positions in federal and foreign income tax expense. The company files income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. The IRS is currently conducting an examination of the company's tax returns for the years 2007 through 2009. Open tax years related to state and foreign jurisdictions remain subject to examination but are not considered material.

8. GOODWILL AND OTHER PURCHASED INTANGIBLE ASSETS

Goodwill

The carrying amounts of goodwill at March 31, 2011, and December 31, 2010, were as follows:

$ in millions	Aerospace Systems	Electronic Systems	Information Systems	Technical Services	Total
Goodwill	$ 3,801	$ 2,402	$ 5,248	$ 925	**$12,376**

Accumulated goodwill impairment losses at March 31, 2011, and December 31, 2010, totaled $570 million at the Aerospace Systems segment.

Purchased Intangible Assets

The table below summarizes the company's aggregate purchased intangible assets:

	March 31, 2011			December 31, 2010		
$ in millions	**Gross Carrying Amount**	**Accumulated Amortization**	**Net Carrying Amount**	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Contract and program intangibles	**$ 1,705**	**$ (1,539)**	**$ 166**	$ 1,705	$ (1,531)	$ 174
Other purchased intangibles	**100**	**(83)**	**17**	100	(82)	18
Total	**$ 1,805**	**$ (1,622)**	**$ 183**	$ 1,805	$ (1,613)	$ 192

The company's purchased intangible assets are subject to amortization and have been amortized on a straight-line basis over an original aggregate weighted-average period of 18 years. Aggregate amortization expense for the three months ended March 31, 2011, and 2010, was $9 million and $18 million, respectively.

The table below shows expected amortization for purchased intangibles for the remainder of 2011 and for the next five years:

$ in millions	
Year ending December 31	
2011 (April 1 - December 31)	28
2012	36
2013	29
2014	16
2015	15
2016	11

9. FAIR VALUE OF FINANCIAL INSTRUMENTS

Investments in Marketable Securities – The company holds a portfolio of marketable securities, primarily consisting of equity securities that are classified as either trading or available-for-sale and can be liquidated without restriction. These assets are recorded at fair value, substantially all of which are based upon quoted market prices for identical instruments in active markets (Level 1 inputs). As of March 31, 2011, and December 31, 2010, respectively, there were marketable equity securities of $72 million and $68 million included in prepaid expenses and other current assets and $244 million and $262 million of marketable equity securities included in miscellaneous other assets in the condensed consolidated statements of financial position.

Derivative Financial Instruments and Hedging Activities – The company utilizes derivative financial instruments in order to manage exposure to interest rate risk and foreign currency exchange rate risk. The company does not use derivative financial instruments for trading or speculative purposes, nor does it use leveraged financial instruments. 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, substantially all of which are based on active or inactive markets for identical of similar instruments or model-derived valuations whose inputs are observable (Level 2 inputs). Where model-derived valuations are appropriate, the company utilizes the income approach to determine fair value and uses the applicable London Interbank Offered Rate (LIBOR) swap rate as the discount rate. 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. 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 hedging instruments as well as the ineffective portion of cash flow hedges, gains or losses resulting from changes in the fair value are reported in Other, net in the condensed consolidated statements of operations. Unrealized gains or losses on cash flow hedges are reclassified from other comprehensive income to earnings from continuing operations upon the recognition of the underlying transactions.

As of March 31, 2011, there were no outstanding interest rate swaps. Foreign currency purchase and sale forward contract agreements with notional values of $49 million and $133 million, respectively, were designated for hedge accounting. The remaining notional values outstanding at March 31, 2011, under foreign currency purchase and sale forward contracts of $8 million and $76 million, respectively, were not designated for hedge accounting.

As of December 31, 2010, an interest rate swap with a notional value of $200 million, and foreign currency purchase and sale forward contract agreements with notional values of $52 million and $86 million, respectively,

were designated for hedge accounting. The remaining notional values outstanding at December 31, 2010, under foreign currency purchase and sale forward contracts of $12 million and $75 million, respectively, were not designated for hedge accounting.

The derivative fair values and related unrealized gains and losses at March 31, 2011, and December 31, 2010, were not material.

There were no material transfers of financial instruments between the three levels of fair value hierarchy during the three months ended March 31, 2011.

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. Additionally, the company 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. The policies are utilized as a partial funding source for deferred compensation and other non-qualified employee retirement plans. As of March 31, 2011, and December 31, 2010, respectively, the carrying values associated with these policies of $263 million and $257 million were recorded in miscellaneous other assets.

Long-Term Debt – As of March 31, 2011, and December 31, 2010, the carrying values of long-term debt were $4.0 billion and $4.7 billion, respectively, and the related estimated fair values were $4.3 billion and $5.1 billion, respectively. The fair value of long-term debt is calculated based on interest rates available for debt with terms and maturities similar to the company's existing debt arrangements. In February 2011, the company repaid notes with a face value of $750 million and an interest rate of 7.125% upon their maturity.

The carrying amounts of all other financial instruments not discussed above approximate fair value due to their short-term nature.

10. INVESTIGATIONS, CLAIMS AND LITIGATION

Spin-off of Shipbuilding Business – Under the previously disclosed SDA with HII in Note 5, from and after the spin-off transaction, HII assumed responsibility for certain investigations, claims and litigation matters related to the Shipbuilding business. The company has therefore excluded from this report previously disclosed Shipbuilding-related investigations, claims and litigation matters now assumed by HII. As a result, the company does not believe these matters are likely to have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

U.S. Government Investigations and Claims – Departments and agencies of the U.S. Government have the authority to investigate various transactions and operations of the company, and the results of such investigations may lead to administrative, civil or criminal proceedings, the ultimate outcome of which could be fines, penalties, repayments, compensatory or treble damages or non-monetary relief. U.S. Government regulations provide that certain findings against a contractor may lead to suspension or debarment from future U.S. Government contracts or the loss of export privileges for a company or a division or subdivision. Suspension or debarment could have a material adverse effect on the company because of its reliance on government contracts and authorizations.

In August 2008, the company disclosed to the Antitrust Division of the Department of Justice possible violations of federal antitrust laws in connection with the bidding process for certain maintenance contracts at a military installation in California. In February 2009, the company and the Department of Justice signed an agreement admitting the company into the Corporate Leniency Program. As a result of the company's acceptance into the Program, the company will be exempt from federal criminal prosecution and criminal fines relating to the matters the company reported to the Department of Justice if the company complies with certain conditions, including its continued cooperation with the government's investigation and its agreement to make restitution if the government was harmed by the violations.

Based upon the available information regarding the foregoing matter that is subject to a U.S. Government investigation, the company does not believe that the outcome of such matter is likely to have a material adverse effect on its consolidated financial position, results of operations or cash flows.

Litigation – Various claims and legal proceedings arise in the ordinary course of business and are pending against the company and its properties. Among them:

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. The defendants' motion for summary judgment on the tort claims is scheduled to be heard on May 10, 2011.

On March 27, 2007, the U.S. District Court for the Central District of California consolidated two Employee Retirement Income Security Act (ERISA) lawsuits that had been separately filed on September 28, 2006, and January 3, 2007, into In Re Northrop Grumman Corporation ERISA Litigation. The plaintiffs filed a consolidated Amended Complaint on September 15, 2010, alleging breaches of fiduciary duties by the Administrative Committees and the Investment Committees (as well as certain individuals who served on or supported those Committees) for two 401(k) Plans sponsored by Northrop Grumman Corporation. The company is not a defendant in the lawsuit. The plaintiffs claim that these alleged breaches of fiduciary duties caused the Plans to incur excessive administrative and investment fees and expenses to the detriment of the Plans' participants. On August 6, 2007, the District Court denied plaintiffs' motion for class certification, and the plaintiffs appealed the District Court's decision on class certification to the U.S. Court of Appeals for the Ninth Circuit. On September 8, 2009, the Ninth Circuit vacated the Order denying class certification and remanded the issue to the District Court for further consideration. As required by the Ninth Circuit's Order, the case was also reassigned to a different judge. The plaintiffs' renewed motion for class certification was rejected on a procedural basis, and they re-filed on January 14, 2011. The District Court postponed the trial date of April 12, 2011 to an as yet undetermined date after resolution of the then pending class certification motion and summary judgment motions. By order dated March 29, 2011, the District Court granted the plaintiffs' motion for class certification. All briefing on the summary judgment motions is to be completed by May 2, 2011, with the hearing scheduled for May 16, 2011.

On June 22, 2007, a putative class action was filed against the Northrop Grumman Pension Plan and the Northrop Grumman Retirement Plan B and their corresponding administrative committees, styled as *Skinner et al. v. Northrop Grumman Pension Plan, etc., et al.,* in the U.S. District Court for the Central District of California. The putative class representatives alleged violations of ERISA and breaches of fiduciary duty concerning a 2003 modification to the Northrop Grumman Retirement Plan B. The modification relates to the employer funded portion of the pension benefit available during a five-year transition period that ended on June 30, 2008. The plaintiffs dismissed the Northrop Grumman Pension Plan, and in 2008 the District Court granted summary judgment in favor of all remaining defendants on all claims. The plaintiffs appealed, and in May 2009, the U.S. Court of Appeals for the Ninth Circuit reversed the decision of the District Court and remanded the matter back to the District Court for further proceedings, finding that there was ambiguity in a 1998 summary plan description related to the employer-funded component of the pension benefit. After the remand, the plaintiffs filed a motion to certify a class. The parties also filed cross-motions for summary judgment. On January 26, 2010, the District Court granted summary judgment in favor of the Plan and denied plaintiffs' motion for summary judgment. The District Court also denied plaintiffs' motion for class certification and struck the trial date of March 23, 2010 as unnecessary given the District Court's grant of summary judgment for the Plan. Plaintiffs appealed the District Court's order to the Ninth Circuit.

Based upon the information available, the company does not believe that the resolution of any of these specific claims and legal proceedings listed above is likely to have a material adverse effect on its consolidated financial position, results of operations or cash flows.

11. COMMITMENTS AND CONTINGENCIES

Contract Performance Contingencies – Contract profit margins may include estimates of revenues not contractually agreed to between the customer and the company for matters such as settlements in the process of negotiation, contract changes, claims and requests for equitable adjustment for previously unanticipated contract costs. These estimates are based upon management's best assessment of the underlying causal events and circumstances, and are included in determining contract profit margins to the extent of expected recovery based on contractual entitlements and the probability of successful negotiation with the customer. As of March 31, 2011, the recognized amounts related to claims and requests for equitable adjustment are not material individually or in the aggregate.

Guarantees of Subsidiary Performance Obligations – From time to time in the ordinary course of business, the company guarantees performance obligations of its subsidiaries under certain contracts. 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 March 31, 2011, the company is not aware of any existing event of default that would require it to satisfy any of these guarantees.

Environmental Matters – The estimated cost to complete remediation has been accrued where it is probable that the company will incur such costs in the future to address environmental impacts at currently or formerly owned or leased operating facilities, or at sites where it has been named a Potentially Responsible Party (PRP) by the Environmental Protection Agency, or similarly designated by other environmental agencies. These accruals do not include any litigation costs related to environmental matters, nor do they include amounts recorded as asset retirement obligations. To assess the potential impact on the company's consolidated financial statements, management estimates the range of reasonably possible remediation costs that could be incurred by the company, taking into account currently available facts on each site as well as the current state of technology and prior experience in remediating contaminated sites. These estimates are reviewed periodically and adjusted to reflect changes in facts and technical and legal circumstances. Management estimates that as of March 31, 2011, the range of reasonably possible future costs for environmental remediation sites is $286 million to $703 million, of which $106 million is accrued in other current liabilities and $210 million is accrued in other long-term 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 (current portion) and miscellaneous other assets (non-current portion). Factors that could result in changes to the company's estimates include: modification of planned remedial actions, increases or decreases in the estimated time required to remediate, changes to the determination of legally responsible parties, discovery of more extensive contamination than anticipated, changes in laws and regulations affecting remediation requirements, and improvements in remediation technology. Should other PRPs not pay their allocable share of remediation costs, the company may have to incur costs in addition to those already estimated and accrued. In addition, there are some potential remediation sites where the costs of remediation cannot be reasonably estimated. 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, 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 contracts and to support the company's self-insured workers' compensation plans. At March 31, 2011, there were $269 million of stand-by letters of credit, $198 million of bank guarantees, and $151 million of surety bonds outstanding.

A subsidiary of the company has guaranteed HII's outstanding $84 million Economic Development Revenue Bonds (Ingalls Shipbuilding, Inc. Project), Taxable Series 1999A. In conjunction with the spinoff of HII, the fair value of this guarantee was recorded in other long-term liabilities and is not a material amount at March 31, 2011. In addition, HII and the company entered into an agreement by which HII assumed the responsibility for the payment and performance of all outstanding indebtedness, obligations and liabilities of the company under this guarantee, and has agreed to indemnify the company against all liabilities that may be incurred in connection with this guarantee.

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, results of operations or cash flows.

U.S. Government Cost Claims – From time to time, the company is advised of claims and penalties concerning certain potential disallowed costs. 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 representatives and such provisions are reviewed on a quarterly basis for sufficiency based on the most recent information available. The company believes that the outcome of any such matters would not have a material adverse effect on its consolidated financial position, results of operations or cash flows.

Operating Leases – Rental expense for operating leases, excluding discontinued operations, was $105 million and $118 million for the three months ended March 31, 2011, and 2010, respectively. These amounts are net of immaterial amounts of sublease rental income.

Related Party Transactions – For all periods presented, the company had no material related party transactions.

Spin-off of Shipbuilding Business – Under the previously mentioned SDA with HII in Note 5, from and after the spin-off transaction, HII assumed responsibility for certain commitments and contingencies related to the Shipbuilding business and agreed to indemnify the company for loss related to these commitments and contingencies. The company has therefore excluded from this report previously disclosed Shipbuilding-related commitments and contingencies now assumed by HII.

NORTHROP GRUMMAN CORPORATION

12. RETIREMENT BENEFITS

The cost of the company's pension plans and medical and life benefits plans is shown in the following table:

	Three Months Ended March 31			
	Pension Benefits		Medical and Life Benefits	
$ in millions	**2011**	2010	**2011**	2010
Components of Net Periodic Benefit Cost				
Service cost	**$ 130**	$ 133	**$ 8**	$ 8
Interest cost	**305**	304	**29**	30
Expected return on plan assets	**(423)**	(380)	**(16)**	(14)
Amortization of:				
Prior service cost (credit)	**6**	9	**(13)**	(13)
Net loss from previous years	**41**	51	**3**	5
Net periodic benefit cost	**$ 59**	$ 117	**$ 11**	$ 16
Defined contribution plans cost	**$ 85**	$ 80		

Employer Contributions – The company's required minimum funding in 2011 for its pension plans and its medical and life benefit plans are approximately $59 million and $123 million, respectively. For the three months ended March 31, 2011, contributions of $34 million and $11 million have been made to the company's pension plans and its medical and life benefit plans, respectively.

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. In addition to the 401(k) defined contribution benefit plan, non- represented employees hired after June 30, 2008, are eligible to participate in a defined contribution program in lieu of a defined benefit pension plan.

Spin-off of Shipbuilding Business – As a result of the previously mentioned spin-off of HII, the company transferred certain pension and other post-retirement benefit plans related exclusively to Shipbuilding employees and the Shipbuilding portion of Northrop Grumman pension and other post-retirement benefit plans that included Shipbuilding employees. A re-measurement of plan assets and liabilities was performed for those plans that included both Shipbuilding and Northrop Grumman employees as of March 31, 2011. The effect of this re-measurement on the company's consolidated financial position, results of operations and cash flows was not material.

13. STOCK COMPENSATION PLANS

At March 31, 2011, Northrop Grumman had stock-based compensation awards outstanding under the following plans: the 2001 Long-Term Incentive Stock Plan, which is applicable to employees, and the 1993 Stock Plan for Non-Employee Directors and 1995 Stock Plan for Non-Employee Directors, as amended. All of these plans were approved by the company's shareholders. Share-based awards under the employee plans consist of stock option awards and restricted stock awards.

As a result of the spin-off of Shipbuilding, the share amounts for outstanding stock-based compensation awards and the strike price for option awards were adjusted to maintain the aggregate intrinsic value of the grants at the date of the spin-off pursuant to the terms of the company's applicable stock-based compensation plans, and taking into account the change in the value of the company's common stock as a result of the distribution of the HII shares to the company's shareholders. The share amounts and the option strike price for outstanding stock-based compensation awards have been restated for all periods presented to reflect the results of this adjustment.

Compensation Expense

Total pre-tax stock-based compensation expense for the three months ended March 31, 2011, and 2010, was $28 million and $34 million, respectively, of which $4 million and $8 million related to stock options and $24 million and $26 million related to stock awards, respectively. Tax benefits recognized in the condensed consolidated statements of operations for stock-based compensation during the three months ended March 31, 2011, and 2010, were $11 million and $14 million, respectively. In addition, the company realized tax benefits of $6 million and $6 million from the exercise of stock options and $32 million and $29 million from the issuance of stock awards in the three months ended March 31, 2011, and 2010, respectively.

At March 31, 2011, there was $265 million of unrecognized compensation expense related to unvested awards granted under the company's stock-based compensation plans, of which $23 million relates to stock options and $242 million relates to stock awards. These amounts are expected to be charged to expense over a weighted-average period of 1.6 years.

Stock Options

The fair value of each of the company's stock option awards is estimated on the date of grant using a Black-Scholes option-pricing model that uses the assumptions noted in the table below. The fair value of the company's stock option awards is expensed on a straight-line basis over the vesting period of the options, which is generally three to four years. Expected volatility is based on an average of (1) historical volatility of the company's stock and (2) implied volatility from traded options on the company's stock. The risk-free rate for periods within the contractual life of the stock option award is based on the yield curve of a zero-coupon U.S. Treasury bond on the date the award is granted with a maturity equal to the expected term of the award. The company uses historical data to estimate future forfeitures. The expected term of awards granted is derived from historical experience under the company's stock-based compensation plans and represents the period of time that awards granted are expected to be outstanding.

The significant weighted-average assumptions relating to the valuation of the company's stock options granted during the three months ended March 31, 2011, and 2010, were as follows:

	2011	2010
Dividend yield	**2.7%**	2.9%
Volatility rate	**25%**	25%
Risk-free interest rate	**2.4%**	2.3%
Expected option life (years)	**6**	6

The company grants stock options primarily to executives, and the expected term of six years is based on these employees' exercise behavior. In 2009, the company granted stock options to non-executives and assigned an expected term of five years for valuing these stock options. The company believes that this stratification of expected terms best represents future expected exercise behavior between the two employee groups. The shorter expected life of employee stock options had an insignificant effect on the weighted average expected option life for the three months ended March 31, 2011, and 2010.

The weighted-average grant date fair value of stock options granted during the three months ended March 31, 2011, and 2010, was $14 and $11 per share, respectively.

Stock option activity for the three months ended March 31, 2011, 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, 2011	13,155	$ 51	3.8 years	$ 118
Granted	805	62		
Exercised	(762)	45		
Cancelled and forfeited	(34)	51		
Outstanding at March 31, 2011	**13,164**	**$ 52**	**3.8 years**	**$ 158**
Vested and expected to vest in the future at March 31, 2011	13,044	$ 52	3.8 years	$ 157
Exercisable at March 31, 2011	10,347	$ 51	3.3 years	$ 135
Available for grant at March 31, 2011	6,427			

The total intrinsic value of stock options exercised during the three months ended March 31, 2011, and 2010, was $14 million and $15 million, respectively. Intrinsic value is measured as the excess of the fair market value at the date of exercise (for stock options exercised) or at March 31, 2011 (for outstanding options), over the applicable exercise price.

Stock Awards

Compensation expense for stock awards is measured at the grant date based on fair value and recognized over the vesting period, generally three years. The fair value of performance-based 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, the amount 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 three months ended March 31, 2011, is presented in the tables 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
Outstanding at January 1, 2011	4,042	$ 48	1.5 years
Granted	1,609	63	
Vested	(40)	62	
Forfeited	(101)	43	
Outstanding at March 31, 2011	**5,510**	**$ 53**	**1.7 years**
Available for grant at March 31, 2011	275		

There were 2.4 million stock awards granted in the three months ended March 31, 2010, with a weighted-average grant date fair value of $54 per share. The company issued 1.2 million and 1.2 million shares to employees in settlement of prior year stock awards that were fully vested, which had total fair values at issuance of $77 million and $67 million and grant date fair values of $89 million and $82 million during the three months ended March 31, 2011, and 2010, respectively. The differences between the fair values at issuance and the grant date fair values reflect the effects of performance adjustments (described above) and changes in the fair market value of the company's common stock.

NORTHROP GRUMMAN CORPORATION

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Northrop Grumman Corporation
Los Angeles, California

We have reviewed the accompanying condensed consolidated statement of financial position of Northrop Grumman Corporation and subsidiaries as of March, 31, 2011, and the related condensed consolidated statements of operations, cash flows and changes in shareholders' equity for the three-month periods ended March 31, 2011 and 2010. These interim financial statements are the responsibility of the Corporation's management.

We conducted our reviews in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our reviews, we are not aware of any material modifications that should be made to such condensed consolidated interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated statement of financial position of Northrop Grumman Corporation and subsidiaries as of December 31, 2010, and the related consolidated statements of operations, cash flows and changes in shareholders' equity for the year then ended prior to reclassification for the discontinued operations described in Note 5 to the accompanying condensed consolidated interim financial statements (not presented herein); and in our report dated February 8, 2011, we expressed an unqualified opinion on those consolidated financial statements. We also audited the adjustments described in Note 5 that were applied to reclassify the December 31, 2010 consolidated statement of financial position of Northrop Grumman Corporation and subsidiaries for discontinued operations. In our opinion, such adjustments are appropriate and have been properly applied to the previously issued consolidated statement of financial position as of December 31, 2010.

/s/ Deloitte & Touche LLP
Los Angeles, California
April 26, 2011

NORTHROP GRUMMAN CORPORATION

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

OVERVIEW

Northrop Grumman Corporation (herein referred to as "Northrop Grumman", the "company", "we", "us", or "our") provides technologically advanced, innovative products, services, and integrated solutions in aerospace, electronics, information and services to our global customers. We participate in many high-priority defense and government services technology programs in the United States (U.S.) and abroad as a prime contractor, principal subcontractor, partner, or preferred supplier. We conduct most of our business with the U.S. Government, principally the Department of Defense (DoD). We also conduct business with local, state, and foreign governments and domestic and international commercial customers.

The following discussion should be read along with the unaudited condensed consolidated financial statements included in this Form 10-Q, as well as our Annual Report on Form 10-K for the year ended December 31, 2010, filed with the Securities and Exchange Commission (SEC), which provides a more thorough discussion of our products and services, industry outlook, and business trends. See discussion of consolidated operating results starting on page 23 and discussion of segment operating results starting on page 27.

Business Outlook and Operational Trends – Except as discussed below under "Economic Opportunities, Challenges, and Risks", there have been no material changes to our products and services, industry outlook, or business trends from those disclosed in our 2010 Form 10-K other than the spin-off of Huntington Ingalls Industries, Inc. (HII) to our shareholders.

Economic Opportunities, Challenges, and Risks – The U.S. continues to face a complex and changing national security environment, and domestic economic challenges, such as unemployment, federal budget deficits and the growing national debt. The U.S. Government's investment in capabilities that respond to our evolving security threats is considered along with other spending priorities and domestic economic and fiscal challenges. We believe that the U.S. Government will continue to place a high priority on defense spending and national security, as well as economic challenges, and will continue to invest in sophisticated systems providing long-range surveillance and intelligence, battle management, precision strike, and strategic agility.

The U.S. Government faces the additional challenge of recapitalizing equipment and rebuilding readiness while also pursuing modernization and reducing overhead and inefficiency. The DoD has announced several initiatives to improve efficiency, refocus priorities and enhance DoD business practices including those used to procure goods and services from defense contractors.

These DoD initiatives are organized into five major areas: affordability and cost growth; productivity and innovation; competition; services acquisition; and processes and bureaucracy. Initial plans resulting from these initiatives were announced in early 2010 and the DoD has said it expects that these initiatives will generate $100 billion in savings. On January 6, 2011, Secretary Gates provided initial details on fiscal year 2012 defense budget and programmatic plans and elaborated on the allocation of the $100 billion in expected savings from efficiency initiatives. The Secretary described plans to allocate $28 billion for increased operating costs and $70 billion for investment in high priority capabilities. In addition to the efficiency savings, the DoD has said it plans to reduce defense spending from its prior plans by $78 billion over the next five fiscal years.

On April 15, 2011, President Obama signed into law a budget for fiscal year 2011. The Congressional Budget Office estimates the budget deal trims $38 billion relative to fiscal year 2010 spending levels. This provides a budget for the DoD of $671 billion for fiscal year 2011. This is approximately $4 billion more than the actual fiscal year 2010 DoD budget of $667 billion. However, it is about $17 billion less than the $688 billion in the President's fiscal year 2011 budget request. Total non-security discretionary spending for fiscal year 2011 will be about $42 billion less than in 2010 with the Departments of Housing and Transportation as well as Commerce, Justice and Science taking the bulk of the reductions.

On April 13, 2011, the President unveiled his framework for reducing $4 trillion in deficit spending between fiscal years 2012 and 2023. This proposal includes an additional $400 billion in savings from "Security Spending"

over 12 years. At the date of this report, it is not clear whether the President intends for these cuts to come from the DoD budget or from broader national security spending that includes activities from the Departments of State, Energy and Homeland Security. In addition, it is unclear what benchmark the Administration is using to calculate savings.

However, the President's proposal is not the last word on future spending and we anticipate continued spirited debate over defense spending in 2011 as part of a larger dialog around the federal deficit and potential cuts in government spending. Budget decisions made in this environment could have long-term consequences for our company and the entire defense industry.

Although reductions to certain programs in which we participate or for which we expect to compete are always possible, we believe that spending on recapitalization, modernization and maintenance of defense 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 individual systems and provide for the real-time integration of individual surveillance, information management, strike, and battle management platforms. Given the current era of irregular warfare, we expect an increase in investment in persistent awareness with intelligence, surveillance and reconnaissance (ISR) systems, cyber warfare, and expansion of information available for the war fighter to make timely decisions. Other significant new competitive opportunities are expected to include long range strike, directed energy applications, missile defense, satellite communications systems, restricted programs, cybersecurity, technical services and information technology contracts, as well as international and homeland security programs.

Green Initiatives – We could be affected by future laws or regulations related to climate change concerns and other actions known as "green initiatives." We recently established a goal of reducing our greenhouse gas emissions over a five-year period through December 31, 2014. To comply with existing green initiatives and our greenhouse gas emissions goal, we expect to incur capital and operating costs, but at this time, we do not expect that such costs will have a material adverse effect upon our financial position, results of operations or cash flows.

Recent Developments in U.S. Government Cost Accounting Standards (CAS) Pension Recovery Rules – On May 10, 2010, the CAS Board published a Notice of Proposed Rulemaking (NPRM) that if adopted would provide a framework to partially harmonize the CAS rules with the Pension Protection Act of 2006 (PPA) funding requirements. The NPRM would "harmonize" by mitigating the mismatch between CAS costs and PPA-amended Employee Retirement Income Security Act (ERISA) minimum funding requirements. Until the final rule is published, and to the extent that the final rule does not completely eliminate mismatches between ERISA funding requirements and CAS pension costs, government contractors maintaining defined benefit pension plans will continue to experience a timing mismatch between required contributions and pension expenses recoverable under CAS. The final rule is expected to be issued in 2011 and to apply to contracts starting the year following the award of the first CAS covered contract after the effective date of the new rule. This would mean the rule would apply to our contracts in 2012. We anticipate that contractors will be entitled to an equitable adjustment for any additional CAS contract costs resulting from the final rule.

Notable Events – Notable events or activities during the three months ended March 31, 2011, included the following:

- We completed the spin-off of HII. Our Shipbuilding segment is now reported as discontinued operations.
- In connection with the spin-off of HII, we received a cash contribution of $1,429 million.
- We reduced our participation in the NSTec joint venture, which resulted in a $1,745 million reduction in contract backlog.
- We repaid notes with a face value of $750 million.

NORTHROP GRUMMAN CORPORATION

CRITICAL ACCOUNTING POLICIES, ESTIMATES, AND JUDGMENTS

There have been no material changes to our critical accounting policies, estimates, or judgments from those discussed in our 2010 Form 10-K.

CONSOLIDATED OPERATING RESULTS

Selected financial highlights are presented in the table below:

	Three Months Ended March 31	
$ in millions, except per share	**2011**	2010
Sales and service revenues	**$ 6,734**	$ 6,914
Cost of sales and service revenues	**5,355**	5,611
General and administrative expenses	**568**	624
Operating income	**811**	679
Interest expense	**(58)**	(77)
Federal and foreign income tax expense	**262**	199
Discontinued operations	**34**	59
Diluted earnings per share from continuing operations	**1.67**	1.34
Net cash provided by (used in) continuing operations	**112**	(452)

Operating Performance Assessment and Reporting

We manage and assess the performance of our businesses based on our performance on individual contracts and programs obtained generally from government organizations using the financial measures referred to below, with consideration given to the Critical Accounting Policies, Estimates, and Judgments described in our 2010 Form 10-K. Our portfolio of long-term contracts is largely flexibly-priced, which means that sales tend to fluctuate in concert with costs across our large portfolio of active contracts, with operating income being a critical measure of operational performance. Due to the Federal Acquisition Regulation (FAR) rules that govern our business, most types of costs are allowable, and we do not focus on individual cost groupings (such as cost of sales or general and administrative costs) as much as we do on total contract costs, which are a key factor in determining contract operating income. As a result, in evaluating our operating performance, we look primarily at changes in sales and service revenues, and operating income, including the effects of significant changes in operating income as a result of changes in contract estimates and the use of the cumulative catch-up method of accounting in accordance with accounting principles generally accepted in the United States of America (GAAP). Unusual fluctuations in operating performance driven by changes in a specific cost element across multiple contracts, however, are described in our analysis. Based on this approach and the nature of our operations, the discussion of results of operations generally focuses around our four segments versus distinguishing between products and services. Our Aerospace Systems and Electronic Systems segments generate predominantly product sales, while the Information Systems and Technical Services segments generate predominantly service revenues.

NORTHROP GRUMMAN CORPORATION

Sales and Service Revenues

Sales and service revenues consist of the following:

	Three Months Ended March 31	
$ in millions	**2011**	2010
Product sales	**$ 3,863**	$ 4,024
Service revenues	**2,871**	2,890
Sales and service revenues	**$ 6,734**	$ 6,914

Sales and service revenues for the three months ended March 31, 2011, decreased $180 million, as compared with the same period in 2010, reflecting lower sales in the Technical Services, Electronic Systems, and Information Systems segments. See "Segment Operating Results" below for further information.

Cost of Sales and Service Revenues and General and Administrative Expenses

Cost of sales and service revenues and general and administrative expenses are comprised of the following:

	Three Months Ended March 31	
$ in millions	**2011**	2010
Cost of sales and service revenues		
Cost of product sales	**$2,842**	$ 2,990
% of product sales	***73.6%***	*74.3%*
Cost of service revenues	**2,513**	2,621
% of service revenues	***87.5%***	*90.7%*
General and administrative expenses	**568**	624
% of total sales and service revenues	***8.4%***	*9.0%*
Cost of sales and service revenues and general and administrative expenses	**$5,923**	$ 6,235

Cost of Product Sales and Service Revenues – The decrease in cost of product sales as a percentage of product sales for the three months ended March 31, 2011, as compared with the same period in 2010, is primarily due to performance improvements in Electronic Systems.

The decrease in cost of service revenues as a percentage of service revenues for the three months ended March 31, 2011, as compared with the same period in 2010, is primarily due to performance improvements in Technical Services and Information Systems.

General and Administrative Expenses – In accordance with industry practice and the regulations that govern the cost accounting requirements for government contracts, most general corporate expenses incurred at both the segment and corporate locations are considered allowable and allocable costs on government contracts. For most components of the company, these costs are allocated to contracts in progress on a systematic basis and contract performance factors include this cost component as an element of cost. General and administrative expenses as a percentage of total sales and service revenues decreased to 8.4 percent for the three months ended March 31, 2011, from 9.0 percent for the comparable period in 2010, primarily due to lower independent research and development, and bid and proposal costs.

Operating Income

We consider operating income to be an important measure for evaluating our operating performance and, as is typical in the industry, we define operating income as revenues less the related cost of producing the revenues and general and administrative expenses. We also further evaluate operating income for each of the business segments in which we operate.

We internally manage our operations by reference to "segment operating income." Segment operating income is defined as operating income before unallocated corporate expenses and net pension adjustment, neither of which affect the operating results of segments, and the reversal of royalty income, which is classified as "other, net" for financial reporting purposes. Segment operating income is one of the key metrics we use to evaluate operating performance. Segment operating income is not, however, a measure of financial performance under GAAP, and may not be defined and calculated by other companies in the same manner.

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

	Three Months Ended March 31	
$ in millions	**2011**	2010
Segment operating income	**$ 721**	$ 706
Unallocated corporate expenses	**(10)**	(25)
Net pension adjustment	**103**	2
Royalty income adjustment	**(3)**	(4)
Total operating income	**$ 811**	$ 679

Segment Operating Income – Segment operating income for the three months ended March 31, 2011, increased $15 million, or 2 percent, as compared with the same period in 2010. Segment operating income was 10.7 percent and 10.2 percent of sales and service revenues for the three months ended March 31, 2011, and 2010, respectively. The increase in segment operating income is primarily due to improved performance in the Electronic Systems, Information Systems, and Technical Services segments. See "Segment Operating Results" below for further information.

Unallocated Corporate Expenses – Unallocated corporate expenses generally include the portion of corporate expenses not considered allowable or allocable under applicable CAS and FAR rules, and therefore not allocated to the segments, such as management and administration, legal, environmental, certain compensation and retiree benefits, and other expenses. Unallocated corporate expenses for the three months ended March 31, 2011, decreased by $15 million as compared to the same period in 2010, primarily due to changes in our estimated recoveries of prior year overhead expenses.

Net Pension Adjustment – Net pension adjustment reflects 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 three months ended March 31, 2011, and 2010, the net pension adjustment was income of $103 million and $2 million, respectively. The increase in net pension adjustment for 2011 is primarily due to improved return on plan assets in 2010.

Royalty Income Adjustment – Royalty income is included in segment operating income and reclassified to other income for financial reporting purposes.

Interest Expense

Interest expense for the three months ended March 31, 2011, decreased $19 million, as compared with the same period in 2010, primarily due to a lower weighted average interest rate resulting from our debt refinancing in November 2010.

Federal and Foreign Income Tax Expense
Our effective tax rate on earnings from continuing operations for the three months ended March 31, 2011, was 34.6 percent compared with 32.7 percent for the same period in 2010. For 2010, our effective tax rates differ from the statutory federal rate primarily due to manufacturing deductions.

Discontinued Operations
Earnings from discontinued operations for the three months ended March 31, 2011, and 2010 were primarily attributable to the Shipbuilding business, which was spun off to our shareholders in March 2011. Earnings from discontinued operations decreased $25 million as compared with the same period in 2010, primarily due to non tax-deductible transaction costs associated with the spin-off of Shipbuilding in 2011.

Earnings from discontinued operations for the three months ended March 31, 2010, also include an adjustment to the gain on the December 2009 sale of our Advisory Services Division to reflect purchase price adjustments and the utilization of additional capital loss carry-forwards.

Diluted Earnings Per Share From Continuing Operations
Diluted earnings per share from continuing operations for the three months ended March 31, 2011, were $1.67 per share, as compared with $1.34 per share for the same period in 2010. Earnings per share are based on weighted average diluted shares outstanding of 296.9 million for the three months ended March 31, 2011, and 306.1 million for the same period in 2010. See Note 4 to the condensed consolidated financial statements in Part I, Item 1.

Net Cash Provided By (Used in) Continuing Operations
For the three months ended March 31, 2011, net cash provided by continuing operations was $112 million as compared with cash used of $452 million for the same period in 2010. The increase of $564 million reflects lower working capital requirements.

NORTHROP GRUMMAN CORPORATION

SEGMENT OPERATING RESULTS

Basis of Presentation

We are aligned into four reportable segments: Aerospace Systems, Electronic Systems, Information Systems, and Technical Services.

	Three Months Ended March 31	
$ in millions	**2011**	2010
Sales and Service Revenues		
Aerospace Systems	**$ 2,736**	$ 2,696
Electronic Systems	**1,808**	1,882
Information Systems	**2,025**	2,064
Technical Services	**688**	763
Intersegment eliminations	**(523)**	(491)
Total sales and service revenues	**$ 6,734**	$ 6,914
Operating Income		
Aerospace Systems	**$ 301**	$ 296
Electronic Systems	**237**	226
Information Systems	**194**	183
Technical Services	**54**	49
Intersegment eliminations	**(65)**	(48)
Total Segment Operating Income	**721**	706
Non-segment factors affecting operating income		
Unallocated corporate expenses	**(10)**	(25)
Net pension adjustment	**103**	2
Royalty income adjustment	**(3)**	(4)
Total operating income	**$ 811**	$ 679

Sales and Service Revenues – Period-to-period sales reflect performance under new and ongoing contracts. Changes in sales and service revenues are typically expressed in terms of volume. Unless otherwise described, volume generally refers to increases (or decreases) in reported revenues incurred due to varying production activity levels, delivery rates, or service levels on individual contracts. Volume changes will typically carry a corresponding operating income change based on the margin rate for a particular contract.

Segment Operating Income – Segment operating income reflects the aggregate performance results of contracts within a business area or segment. Excluded from this measure are certain costs not directly associated with contract performance, including the portion of corporate expenses such as management and administration, legal, environmental, certain compensation costs and other retiree benefits, and other expenses not considered allowable or allocable under applicable CAS regulations and the FAR, and therefore not allocated to the segments. Changes in segment operating income are typically expressed in terms of volume, as discussed above, or performance. Performance refers to changes in contract margin rates for the period. These changes typically relate to profit recognition associated with revisions to total estimated costs at completion of the contract (EAC) that reflect improved (or deteriorated) operating performance on a particular contract. Operating income changes are accounted for on a cumulative to date basis at the time an EAC change is recorded.

Operating income may also be affected by, among other things, the effects of workforce stoppages, natural disasters (such as hurricanes and earthquakes), resolution of disputed items with the customer, recovery of insurance proceeds, and other discrete events. At the completion of a long-term contract, any originally estimated costs not incurred or reserves not fully utilized (such as warranty reserves) could also impact contract earnings. Where such items have occurred, and the effects are material, a separate description is provided.

Contract Descriptions

For convenience, a brief description of certain programs discussed in this Form 10-Q is included in the "Glossary of Programs" beginning on page 34.

AEROSPACE SYSTEMS

Business Description

Aerospace Systems is a premier developer, integrator, producer and supporter of manned and unmanned aircraft, spacecraft, high-energy laser systems, microelectronics and other systems and subsystems critical to maintaining the nation's security and leadership in technology. Aerospace Systems' customers, which are primarily government agencies, use these systems in many different mission areas including intelligence, surveillance and reconnaissance; communications; battle management; strike operations; electronic warfare; missile defense; earth observation; space science; and space exploration. The segment consists of four business areas: Strike & Surveillance Systems (S&SS); Space Systems (SS); Battle Management & Engagement Systems (BM&ES); and Advanced Programs & Technology (AP&T).

	Three Months Ended March 31	
$ in millions	**2011**	2010
Sales and service revenues	**$2,736**	$2,696
Segment operating income	**301**	296
As a percentage of segment sales	***11.0%***	*11.0%*

Sales and Service Revenues

Aerospace Systems revenue for the three months ended March 31, 2011, increased $40 million, or 1 percent, as compared with the same period in 2010. The increase is primarily due to higher sales in BM&ES, partially offset by lower sales in SS. The higher sales in BM&ES are primarily due to increased activity on Long Endurance Multi-Intelligence Vehicle (LEMV), higher volume on Broad Area Maritime Surveillance (BAMS) and Joint Surveillance Target Attack Radar System (Joint STARS), partially offset by lower volume on the E-2 Hawkeye programs. The decrease at SS is primarily due to lower volume on National Polar-orbiting Operational Environmental Satellite System (NPOESS) due to a program restructure, lower volume on Advanced Extremely High Frequency (AEHF) programs, and lower volume due to a program re-plan on James Webb Space Telescope (JWST), partially offset by higher volume on restricted programs.

Segment Operating Income

Operating income at Aerospace Systems for the three months ended March 31, 2011, increased $5 million, or 2 percent, as compared with the same period in 2010 and operating income as a percentage of sales was 11.0 percent, unchanged from the same period in 2010. The increase is primarily due to lower amortization of purchased intangibles and other costs and the higher sales volume discussed above, offset by unfavorable program performance in S&SS.

NORTHROP GRUMMAN CORPORATION

ELECTRONIC SYSTEMS

Business Description

Electronic Systems is a leader in the design, development, manufacture, and support of solutions for sensing, understanding, anticipating, and controlling the environment for our global military, civil, and commercial customers and their operations. 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 systems, space systems, and logistics services. The segment consists of five business areas: Intelligence, Surveillance & Reconnaissance Systems; Land & Self Protection Systems; Naval & Marine Systems; Navigation Systems; and Targeting Systems.

	Three Months Ended March 31	
$ in millions	**2011**	2010
Sales and service revenues	**$1,808**	$1,882
Segment operating income	**237**	226
As a percentage of segment sales	***13.1%***	*12.0%*

Sales and Service Revenues

Electronic Systems revenue for the three months ended March 31, 2011, decreased $74 million, or 4 percent, as compared with the same period in 2010. The decrease is primarily due to $143 million lower sales in Land & Self Protection Systems, partially offset by $55 million higher sales in Targeting Systems. The decrease in Land & Self Protection Systems is due to fewer deliveries on the Large Aircraft Infrared Countermeasures (LAIRCM) and Vehicular Intercommunications Systems (VIS) programs. The increase in Targeting Systems is due to higher deliveries on a restricted program and the LITENING Gen 4 program.

Segment Operating Income

Operating income at Electronic Systems for the three months ended March 31, 2011, increased $11 million, or 5 percent, as compared with the same period in 2010 and operating income as a percentage of sales increased to 13.1 percent from 12.0 percent in the same period in 2010. The higher operating income and increase as a percentage of sales is primarily due to performance improvements on Land & Self Protection Systems programs and better performance on postal automation programs, partially offset by the lower sales volume discussed above.

INFORMATION SYSTEMS

Business Description

Information Systems is a leading global provider of advanced solutions for the DoD, intelligence, federal civilian, state and local agencies, and international customers. Products and services are focused on the fields of command, control, communications, computers and intelligence; air and missile defense; airborne reconnaissance; intelligence processing; decision support systems; cybersecurity; information technology; and systems engineering and systems integration. The segment consists of three business areas: Defense Systems, Intelligence Systems, and Civil Systems.

	Three Months Ended March 31	
$ in millions	**2011**	2010
Sales and service revenues	**$2,025**	$2,064
Segment operating income	**194**	183
As a percentage of segment sales	***9.6%***	*8.9%*

Sales and Service Revenues

Information Systems revenue for the three months ended March 31, 2011, decreased $39 million, or 2 percent, as compared with the same period in 2010. The decrease is primarily due to $24 million in lower sales in Intelligence Systems and $13 million in lower sales in Defense Systems. The decrease in Intelligence Systems is primarily driven by lower volume on the Counter Narco-Terrorism Program Office (CNTPO) and a restricted program, partially offset by higher volume on other restricted programs. The decrease in Defense Systems is primarily driven by lower volume on F-22, Multi-Role Tactical Command Data Link (MRTCDL), and several other programs, partially offset by program growth on Joint National Integration Center Research and Development Contract (JRDC) and Encore II.

Segment Operating Income

Operating income at Information Systems for the three months ended March 31, 2011, increased $11 million, or 6 percent, as compared with the same period in 2010 and operating income as a percentage of sales increased to 9.6 percent from 8.9 percent for the same period in 2010. The higher operating income and increase as a percentage of sales is due to improved performance on Virginia PPEA IT Outsource (VITA) and favorable performance on several other programs, partially offset by the lower sales volume discussed above.

TECHNICAL SERVICES

Business Description

Technical Services is a leading provider of logistics, infrastructure, and sustainment support, while also providing a wide array of technical services including training and simulation. The segment consists of three areas of business: Defense and Government Services Division (DGSD); Training Solutions Division (TSD); and Integrated Logistics and Modernization Division (ILMD).

	Three Months Ended March 31	
$ in millions	**2011**	2010
Sales and service revenues	**$688**	$763
Segment operating income	**54**	49
As a percentage of segment sales	***7.8%***	*6.4%*

Sales and Service Revenues

Technical Services revenue for the three months ended March 31, 2011, decreased $75 million, or 10 percent, as compared with the same period in 2010 and operating income as a percentage of sales increased to 7.8 percent from 6.4 percent for the same period in 2010. The decrease is primarily due to $139 million lower sales in DGSD, partially offset by $80 million higher sales in ILMD. The decrease in DGSD was associated with the reduced participation in the National Security Technologies (NSTec) joint venture. Effective January 1, 2011, the company reduced its participation in this joint venture, and as a result no longer consolidates sales for the joint venture in the three months ended March 31, 2011, as compared with sales of $136 million for the same period in 2010. The higher volume in ILMD was primarily due to increased activity on the KC-10 Contractor Logistics Support program, which began in February 2010.

Segment Operating Income

Operating income at Technical Services for the three months ended March 31, 2011, increased $5 million, or 10 percent, as compared with the same period in 2010 and operating income as a percentage of sales increased to 7.8 percent from 6.4 percent for the same period in 2010. The higher operating income is primarily due to improved program performance across various programs. The improvement in the operating income as a percentage of sales is primarily due to the effects of the change in participation in the NSTec joint venture.

NORTHROP GRUMMAN CORPORATION

BACKLOG

Definition

Total backlog at March 31, 2011, was approximately $43.7 billion. Total backlog includes both funded backlog (firm orders for which funding is contractually obligated by the customer) and unfunded backlog (firm orders for which funding is not currently contractually obligated by the customer). Unfunded backlog excludes unexercised contract options and unfunded indefinite delivery indefinite quantity (IDIQ) orders. For multi-year services contracts with non-federal government customers having no stated contract values, backlog includes only the amounts committed by the customer. Backlog is converted into sales as work is performed or deliveries are made.

Backlog consisted of the following at March 31, 2011, and December 31, 2010:

	March 31, 2011			December 31, 2010		
$ in millions	**Funded**	**Unfunded**	**Total Backlog**	Funded	Unfunded	Total Backlog
Aerospace Systems	**$ 8,829**	**$11,324**	**$20,153**	$ 9,185	$11,683	$20,868
Electronic Systems	**7,904**	**1,825**	**9,729**	8,093	2,054	10,147
Information Systems	**4,498**	**5,954**	**10,452**	4,711	5,879	10,590
Technical Services	**2,561**	**831**	**3,392**	2,763	2,474	5,237
Total backlog	**$23,792**	**$19,934**	**$43,726**	$24,752	$ 22,090	$ 46,842

New Awards

The estimated value of contract awards included in backlog during the three months ended March 31, 2011, was $5.3 billion. Significant new awards during this period include $401 million for the Global Hawk HALE program, and $362 million for the B-2 Stealth Bomber programs.

Backlog Adjustment

Total backlog as of March 31, 2011 was reduced by $1,745 million to reflect a change in the company's participation in the NSTec joint venture. Effective January 1, 2011, NSTec joint venture results are no longer consolidated in the company's financial statements.

LIQUIDITY AND CAPITAL RESOURCES

We endeavor to ensure the most efficient conversion of operating results into cash for deployment in growing our businesses and maximizing shareholder value. We actively manage our capital resources through working capital improvements, capital expenditures, strategic business acquisitions and divestitures, debt issuance and repayment, required and voluntary pension contributions, and returning cash to our shareholders through dividend payments and repurchases of common stock.

We use various financial measures to assist in capital deployment decision-making, including net cash provided by operations, free cash flow, net debt-to-equity, and net debt-to-capital. We believe these measures are useful to investors in assessing our financial performance.

NORTHROP GRUMMAN CORPORATION

The table below summarizes key components of cash flow provided by (used in) continuing operations:

	Three Months Ended March 31	
$ in millions	**2011**	2010
Net earnings	**$ 530**	$ 469
Net earnings from discontinued operations	**(34)**	(59)
Other non-cash items[1]	**164**	174
Retiree benefit funding less than expense	**34**	85
Trade working capital increase	**(582)**	(1,121)
Net cash provided by (used in) continuing operations	**$ 112**	$ (452)

(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 represents cash from continuing operations less capital expenditures and outsourcing contract and related software costs. Outsourcing contract and related software costs are similar to capital expenditures in that the contract costs represent incremental external costs or certain specific internal costs that are directly related to the contract acquisition and transition/set-up. These outsourcing contract and related software costs are deferred and expensed over the contract life. We believe free cash flow from continuing operations is a useful measure for investors to consider. This measure is a key factor in our planning for and consideration of strategic acquisitions, stock repurchases and the payment of dividends.

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.

For 2011 and beyond, 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 service debt and contract obligations, finance capital expenditures, fund required and voluntary pension contributions, continue acquisition of shares under our share repurchase program, and continue paying dividends to our shareholders.

The table below reconciles net cash provided by (used in) continuing operations to free cash flow provided by continuing operations:

	Three Months Ended March 31	
$ in millions	**2011**	2010
Net cash provided by (used in) continuing operations	**$ 112**	$ (452)
Less:		
Capital expenditures	**(122)**	(103)
Outsourcing contract and related software costs	**(1)**	(3)
Free cash flow from continuing operations	**$ (11)**	$ (558)

Cash Flows

The following is a discussion of our major continuing operations, investing and financing activities for the three months ended March 31, 2011, and 2010, respectively, as classified in the condensed consolidated statements of cash flows located in Part I, Item 1.

Operating Activities – Net cash provided by continuing operations for the three months ended March 31, 2011, was $112 million as compared with cash used of $452 million for the same period in 2010. The increase of $564 million in net cash provided by continuing operations is primarily due to lower working capital requirements.

Investing Activities – Net cash provided by investing activities by continuing operations for the three months ended March 31, 2011, was $1,344 million as compared with cash used of $103 million in the same period of 2010. The $1,447 million increase in net cash provided by investing activities by continuing operations is primarily due to the spin-off of the Shipbuilding business.

Financing Activities – Net cash used in financing activities for the three months ended March 31, 2011, was $843 million as compared with $648 million in the same period of 2010. The $195 million increase in net cash used in financing activities is primarily due to higher debt repayments partially offset by lower common stock repurchases.

ACCOUNTING STANDARDS UPDATES

See Note 2 to the condensed consolidated financial statements in Part I, Item 1 for information related to accounting standards updates.

FORWARD-LOOKING STATEMENTS AND PROJECTIONS

Statements in this Form 10-Q and the information we are incorporating by reference, other than statements of historical fact, constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "expect," "intend," "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 are believed valid 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 II, 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 of this report 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.

CONTRACTUAL OBLIGATIONS

There have been no material changes to our contractual obligations from those discussed in our 2010 Form 10-K other than these items related to the spin-off of the Shipbuilding business: $105 million of long-term debt, $105 million of interest payments on long-term debt, $137 million of operating leases, $1,972 million of purchase obligations and $587 million of other long-term liabilities. Other long-term liabilities primarily consist of total accrued workers' compensation reserves, deferred compensation, and other miscellaneous liabilities.

NORTHROP GRUMMAN CORPORATION

GLOSSARY OF PROGRAMS

Listed below are brief descriptions of the programs mentioned in this Form 10-Q.

Program Name	Program Description
Advanced Extremely High Frequency (AEHF)	Provide the communication payload for the nation's next generation military strategic and tactical satellite relay systems that will deliver survivable, protected communications to U.S. forces and selected allies worldwide.
B-2 Stealth Bomber	Maintain strategic, long-range multi-role bomber with war-fighting capability that combines long range, large payload, all-aspect stealth, and near-precision weapons in one aircraft.
Broad Area Maritime Surveillance (BAMS) Unmanned Aircraft System	A maritime derivative of the Global Hawk that provides persistent maritime Intelligence, Surveillance, and Reconnaissance (ISR) data collection and dissemination capability to the Maritime Patrol and Reconnaissance Force.
Counter Narco-Terrorism Program Office (CNTPO)	Counter Narco-Terrorism Program Office provides support to the U.S. Government, coalition partners, and host nations in Technology Development and Application Support; Training; Operations and Logistics Support; and Professional and Executive Support. The program provides equipment and services to research, develop, upgrade, install, fabricate, test, deploy, operate, train, maintain, and support new and existing federal Government platforms, systems, subsystems, items, and host-nation support initiatives.
E-2 Hawkeye	The U.S. Navy's airborne battle management command and control mission system platform providing airborne early warning detection, identification, tracking, targeting, and communication capabilities. The company is developing the next generation capability including radar, mission computer, vehicle, and other system enhancements, to support the U.S Naval Battle Groups and Joint Forces, called the E-2D Advanced Hawkeye. Recently the Navy approved Milestone C for Low Rate Initial Production.
Encore II	Provide Military Agencies, DoD, and other agencies of the Federal Government IT services and associated enabling products to satisfy IT activities at all operating levels, including hardware and software incidental to an overall IT solution.
F-22	Joint venture with Raytheon to design, develop and produce the F-22 radar system. Northrop Grumman is responsible for the overall design of the AN/APG-77 and AN/APG-77(V) 1 radar systems, including the control and signal processing software and responsibility for the AESA radar systems integration and test activities. In addition, Northrop Grumman is responsible for overall design and integration of the F-22 Communication, Navigation, and Identification (CNI) system.
Global Hawk High-Altitude Long-Endurance (HALE) Systems	Develop, deliver and sustain the Global Hawk HALE unmanned aerial system and its derivatives to both domestic and international customers for intelligence, reconnaissance, and surveillance, including deployment of assets to support the global war on terror. The Global Hawk system has a central role in ISR missions supporting operations in Afghanistan and Iraq.
James Webb Space Telescope (JWST)	Design, develop, integrate and test a space-based infrared telescope satellite to observe the formation of the first stars and galaxies in the universe.

NORTHROP GRUMMAN CORPORATION

Program Name	Program Description
Joint National Integration Center Research and Development contract (JRDC)	Support the development and application of modeling and simulation, war-gaming, test and analytic tools for air and missile defense.
Joint Surveillance Target Attack Radar System (Joint STARS)	Joint STARS detects, locates, classifies, tracks and targets hostile ground movements, communicating real-time information through secure data links with U.S. Air Force and Army command posts.
KC-10 Contractor Logistics Support	Contractor Logistics Services (CLS) contract supporting the U.S. Air Force KC-10 tanker fleet including depot maintenance, supply chain management, maintenance and management at locations in the United States and worldwide.
Large Aircraft Infrared Counter-measures (LAIRCM)	Infrared countermeasures systems for C-17 and C-130 aircraft. The IDIQ contract will further allow for the purchase of LAIRCM hardware for foreign military sales and other government agencies.
LITENING targeting pod system (LITENING)	A self-contained, multi-sensor weapon aiming system that enables fighter pilots to detect, acquire, auto-track and identify targets for highly accurate delivery of both conventional and precision-guided weapons.
Long Endurance Multi-Intelligence Vehicle (LEMV)	Contract awarded by the U.S. Army Space and Missile Defense Command for the development, fabrication, integration, certification and performance of one LEMV system. It is a state-of-the-art, lighter-than-air airship designed to provide ground troops with persistent surveillance. Development and demonstration of the first airship is scheduled to be completed December 2011. The contract also includes options for two additional airships and in-country support.
Multi-Role Tactical Common Data Link (MRTCDL)	Provide war fighters with critical real-time networking connectivity by enabling extremely fast exchange of data via ground, airborne and satellite networks.
National Polar-orbiting Operational Environmental Satellite System (NPOESS)	Design, develop, integrate, test, and operate an integrated system comprised of two satellites with mission sensors and associated ground elements for providing global and regional weather and environmental data.
National Security Technologies (NSTec)	Participate in a joint venture that manages and operates the Nevada National Security Site, providing infrastructure support, including oversight of the nuclear explosives safety team, supporting hazardous chemical spill testing, emergency response training and conventional weapons testing.
Vehicular Intercommunications Systems (VIS)	Provide clear and noise-free communications between crewmembers inside combat vehicles and externally over as many as six combat net radios for the U.S. Army. The active noise-reduction features of VIS provide significant improvement in speech intelligibility, hearing protection, and vehicle crew performance.
Virginia PPEA IT Outsource (VITA)	Provide high-level IT consulting, IT infrastructure and services to Virginia state and local agencies including data center, help desk, desktop, network, applications and cross-functional services.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Interest Rates – We are exposed to market risk, primarily related to interest rates and foreign currency exchange rates. Financial instruments subject to interest rate risk include variable-rate short-term borrowings under the credit agreement and short-term investments. At March 31, 2011, substantially all outstanding borrowings were fixed-rate long-term debt obligations of which a significant portion are not callable until maturity. Our sensitivity to a 1 percent change in interest rates is tied to our $2 billion credit agreement, which had no balance outstanding at March 31, 2011, or December 31, 2010. See Note 9 to the condensed consolidated financial statements in Part I, Item 1.

Derivatives – We do not hold or issue derivative financial instruments for trading purposes. We may enter into interest rate swap agreements to manage our exposure to interest rate fluctuations. At March 31, 2011, we had no interest rate swap agreements in effect and at December 31, 2010, we had one interest rate swap agreement in effect. See Note 9 to the condensed consolidated financial statements in Part I, Item 1.

Foreign Currency – We enter into foreign currency forward contracts to manage foreign currency exchange rate risk related to receipts from customers and payments to suppliers denominated in foreign currencies. At March 31, 2011, and December 31, 2010, the amount of foreign currency forward contracts outstanding was not material. We do not consider the market risk exposure related to foreign currency exchange to be material to the condensed consolidated financial statements. See Note 9 to the condensed consolidated financial statements in Part I, Item 1.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

Our principal executive officer (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 March 31, 2011, 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 Controls over Financial Reporting

During the three months ended March 31, 2011, no change occurred in our internal controls over financial reporting that materially affected, or is likely to materially affect, our internal controls over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We have provided information about certain legal proceedings in which we are involved in Note 10 to the condensed consolidated financial statements in Part I, Item 1. The legal proceedings disclosed in Note 15 to the consolidated financial statements in Part II, Item 8, of our 2010 Form 10-K, included matters relating to our former Shipbuilding business. As disclosed elsewhere in this report, we completed a spin-off of HII effective as of March 31, 2011, and our Shipbuilding business is now reported as discontinued operations. In connection with the spin-off transaction, we entered into a number of agreements with our former subsidiary HII setting forth certain rights and obligations of the company and HII after the spin-off transaction, including a Separation and Distribution Agreement dated March 29, 2011. Under those Agreements, from and after the spin-off transaction, HII assumed responsibility for certain liabilities related to the Shipbuilding business, and we have therefore excluded from this report previously disclosed Shipbuilding-related investigations, claims and litigation matters assumed by HII. We have agreed to provide certain support to HII in connection with various legal matters, including to help ensure an orderly transition following the distribution. In addition to the matters disclosed in Note 10, we are a party to various investigations, lawsuits, claims and other legal proceedings that arise in the ordinary course of our business. Based on information available to us, we do not believe at this time that any of such additional proceedings will individually, or in the aggregate, have a material adverse effect on our financial position, 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 II, Item 1A, of this report.

Item 1A. Risk Factors

The risk factors described in "Item 1A – Risk Factors" in our 2010 Form 10-K included risks that specifically related to our Shipbuilding business. As disclosed elsewhere in this report, we completed a spin-off transaction of HII effective as of March 31, 2011, and our Shipbuilding business is now reported as discontinued operations. We have amended the risk factors presented in our Form 10-K and replaced them in their entirety with the risk factors presented below to reflect changes resulting from the spin-off transaction as well as changes to other risk factors applicable to us. These risk factors should be read in conjunction with the information described in this report and our Form 10-K.

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.

Risks Related to Our Business

- ***We depend heavily on a single customer, the U.S. Government, for a substantial portion of our business, including programs subject to security classification restrictions on information. Changes in this customer's priorities and changes affecting its ability to do business with us 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 approximately 91% of our total revenues during the past several years. The federal government is considering significant changes to defense spending and other programs. We cannot predict the impact of potential changes in priorities due to military transformation and planning and/or the nature of war-related activity on existing, follow-on or replacement programs. A shift of 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, or cash flows.

In addition, the U.S. Government generally has the ability to terminate contracts, in whole or in part, without prior notice, for 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 the rare circumstance where a U.S. government contract does not have such termination protection, 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 could also result in the cancellation of future work on that program. Termination by the U.S. Government of a contract due to our default could require us to pay for re-procurement costs in excess of the original contract price, net of the value of work accepted from the original contract. Termination of a contract due to our default may expose us to liability and could have a material adverse effect on our ability to compete for contracts.

- ***Continuing uncertainty about the funding of the federal government and the 2012 and subsequent budgets may negatively impact our business and programs and could have a material adverse effect on our financial position, results of operations or cash flows.***

  The funding of U.S. Government programs is subject to congressional budget authorization and appropriation processes. For many programs, Congress appropriates funds on a fiscal year basis even though a program may extend over several fiscal years. Consequently, programs are often only partially funded initially and additional funds are committed only as Congress makes further appropriations. 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 2012 and subsequent budgets ultimately approved by Congress or be included in the scope of separate supplemental appropriations. The impact, severity and duration of the current U.S. economic situation, the sweeping economic plans adopted by the U.S. Government, and pressures on the federal budget could also adversely affect the total funding and/or funding for individual programs. In the event that appropriations 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, which could have a material adverse effect on our future sales under such program, and on our financial position, results of operations, and/or cash flows.

- ***As a U.S. Government contractor, we are subject to a number of 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. If any such regulations or procurement requirements change, our costs of complying with them could increase and reduce our margins.

  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) and Defense Contract Management Agency (DCMA). These agencies review our 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. Systems that are subject to review include, but are not limited to, our accounting systems, purchasing systems, billing systems, property management and control systems, cost estimating systems, compensation systems and management information systems. Any costs 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 and administrative sanctions, which may include termination of contracts, forfeiture of profits, suspension of payments, fines and suspension, or prohibition

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.

The U.S. Government, from time to time, recommends to its contractors that certain contract prices be reduced, or that costs allocated to certain contracts be disallowed. These recommendations can involve substantial amounts. In the past, as a result of such audits and other investigations and inquiries, we have on occasion made adjustments to our contract prices and the costs allocated to our government contracts.

We are also, 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, 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 convicted or otherwise 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 and fines, compensatory or treble damages, which could have a material adverse effect on our financial position, results of operations, or cash flows. Such findings or convictions could also result in suspension or debarment from government contracting. Given our dependence on government contracting, suspension or debarment could have a material adverse effect on our financial position, results of operations, or cash flows.

- ***The Department of Defense is implementing plans for significant changes to its business practices that could have a significant effect on its overall procurement process and impact our current programs and potential new awards.***

  In September 2010, the DoD announced its "Better Buying Power Initiative" designed to gain efficiencies, refocus priorities and enhance business practices used by the DoD, including those used to procure goods, services and solutions from defense contractors. These initiatives are organized into five major areas: affordability and cost growth; productivity and innovation; competition; services acquisition; and processes and bureaucracy. These new initiatives could have a significant impact on the contracting environment in which we do business. They are expected to impact current programs as well as new DoD business opportunities. In his January 6, 2011, announcement regarding future plans, the Secretary of Defense implemented some of these initiatives to reduce costs and free up resources for reinvestment. For example, he directed using multi-year procurement of Navy aircraft, streamlining information technology infrastructure, reducing outsourcing, consolidating operating centers and staffs, improving depot and supply chain processes, downsizing intelligence organizations, and eliminating some elements of the DoD's bureaucracy. Changes to the DoD acquisition system and contracting models can affect whether we pursue certain opportunities and the terms under which we are able to do so. These initiatives are still fairly new and the full impact to our business remains uncertain and subject to the manner in which the DoD implements them.

- ***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 than we do in some areas. We anticipate increased competition in some of our core markets as a result of the reduction in budgets for many U.S. Government agencies and fewer new program starts. In addition, as discussed in more detail above, projected U.S. defense spending levels for periods beyond the near-term are uncertain and difficult to predict. Changes in U.S. defense spending may limit certain future market opportunities. We are also facing increasing competition in our domestic and international markets from 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. If we are unable to continue to compete

successfully against our current or future competitors, we may experience declines in revenues and market share, which could negatively impact our financial position, results of operations, or cash flows.

The competitive environment can also be affected by bid protests from unsuccessful bidders on new program awards. Bid protests could result in the award decision being overturned, requiring a re-bid of the contract. Even where a bid protest does not result in a re-bid, the resolution can extend the time until the contract activity can begin, and delay potential 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.

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 or could experience difficulty in performing under our contracts if the needs for such employees are unmet.

Approximately 3,700 of our 79,000 employees are covered by an aggregate of 19 collective bargaining agreements. We expect to re-negotiate renewals of four of our collective bargaining agreements in 2011. Collective bargaining agreements generally expire after three to five years and are subject to renegotiation at that time. We may experience difficulties with renewals and renegotiations of existing collective bargaining agreements. If we experience such difficulties, we could incur additional expenses and 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 state-of-the-art manufacturing expertise or are dependent upon factors not wholly within our control. Failure to meet these obligations could adversely affect our profitability and future prospects.***

We design, develop and manufacture technologically advanced and innovative products and services 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, learning curve assumptions or materials and 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, 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 cannot be justified as an increase in contract value due from customers 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 due to technical challenges, manufacturing difficulties or delays, or workforce-related issues, or if 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, the timelines 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, natural disasters and the inability to recover any claims included in the estimates to complete. A significant change in cost estimates on one or more programs could have a material adverse effect on our consolidated financial position, results of operations or cash flows.

  Most of our contracts are firm fixed-price contracts or flexibly priced contracts. Our risk varies with the type of contract. Flexibly priced contracts include both cost-type and fixed-price incentive contracts. Due to their nature, firm fixed-price contracts inherently have more risk than flexibly priced contracts. Approximately 41 percent of our annual revenues are derived from firm fixed-price contracts. We typically enter into firm 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. Fixed-price development work comprises a small portion of our firm 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. In addition, successful performance of firm fixed-price development contracts that include production units is subject to our ability to control some cost growth in meeting production specifications and delivery rates. While management uses its best judgment to estimate costs associated with fixed-price development contracts, future events could result in either upward or downward adjustments to those estimates.

  Under a fixed-price incentive contract, the allowable costs incurred by the contractor are subject to reimbursement, but are subject to a cost-share limit, which affects profitability. Under a cost-type contract, the allowable costs incurred by the contractor are also subject to reimbursement plus a fee that represents profit. We typically 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.

- ***Our earnings and margins depend, in part, on our ability to perform under contracts.***

  When agreeing to contractual terms, our management makes assumptions and projections about future conditions and events, many of which extend over long periods. These projections assess the productivity and availability of labor, the complexity of the work to be performed, the cost and availability of materials, the impact of delayed performance, and the timing of product deliveries. If there is a significant change in one or more of these circumstances or estimates, or if we face unanticipated contract costs, the profitability of one or more of these contracts may be adversely affected.

- ***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 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 material costs to the extent that the increases in our costs are in line with industry indices. However, the difference in basis between our actual material 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 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 be only one supplier. The inability of a sole source supplier to meet our needs could have a material adverse effect on our financial position, results of operations, or cash flows.

- ***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 damaging storms and other natural disasters, such as earthquakes and environmental disasters. Although preventative measures may help to mitigate damage, the damage and disruption resulting from natural and environmental disasters may be significant. Should insurance or other risk transfer mechanisms be unavailable or insufficient to recover all costs, we could experience a material adverse effect on our financial position, results of operations, or cash flows.

  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, which could reduce our profitability due to damages or other costs that may not be fully recoverable from the subcontractor or from the customer and could result in a termination of the prime contract and have an adverse effect on our ability to compete for future contracts.

  Natural disasters can 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.

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

  Contract accounting requires judgment relative to assessing risks, estimating contract revenues and costs, and making assumptions for schedule and technical issues. Due to the size and nature of many of our contracts, the estimation of total revenues and costs at completion is complicated and subject to many variables. For example, assumptions have to be made regarding the length of time to complete the contract because costs also include expected increases in wages and prices for materials. Similarly, assumptions have to be made regarding the future impact of our self-imposed efficiency initiatives and cost reduction efforts. 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.

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 future period financial reporting and performance. See Critical Accounting Policies, Estimates, and Judgments in Part II, Item 7.

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

Our international business is not substantial, but is subject to numerous 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 the anti-boycott provisions of the U.S. Export Administration Act. Failure by us or our sales representatives or consultants to comply with these laws and regulations could result in administrative, civil, or criminal liabilities and could, in the extreme case, result in suspension or debarment from government contracts or suspension of our export privileges, which could have a material adverse effect on us. Changes in regulation or political environment may affect our ability to conduct business in foreign markets, including investment, procurement and repatriation of earnings.

The services and products we provide internationally, including through the use of 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 damage or destruction to our products or resulting in injury or loss of life to our employees, subcontractors or other third parties. We maintain insurance to mitigate risk and potential liabilities related to our international operations, but our insurance coverage may not be adequate to cover these claims and liabilities and we may be forced to bear substantial costs arising from those claims. (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 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 compliance controls, policies and procedures to prevent misconduct by employees, agents or business partners that would violate the laws of the jurisdictions in which we operate, including laws governing 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 criminal acts committed by our employees, agents or business partners. Any improper actions could subject us to civil or criminal investigations and monetary and non-monetary penalties that 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 and other disruptions.***

As a defense contractor, we face various security threats, including threats to the operation of our information technology infrastructure; threats from unlawful attempts to gain access to our proprietary or classified information; threats to the safety of our directors, officers, and employees; threats to the security of our facilities; and threats from terrorist acts. These threats could lead to losses of critical infrastructure, personnel or capabilities, essential to our operations and could have a material adverse effect on our financial position, results of operations, or cash flows.

We also manage information technology systems for various customers. While we maintain information security policies and procedures for managing these systems, we generally face the same security threats for these systems as for our own systems. Computer viruses, attempts to gain access to our customers' data or other electronic security breaches could lead to disruptions in mission critical systems for our customers, unauthorized release of confidential or personally identifiable information and corruption of customer data. These events could damage our reputation and lead to financial losses from remedial actions we must take, potential liability to customers and litigation expenses.

- ***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 certain of our prime contractors provide indemnity protection under our contracts pursuant to or in connection with Public Law 85-804 and the Price-Anderson Nuclear Industries Indemnity Act for certain of our 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.

- ***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 protection 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 commonly referred to as "green initiatives." 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 can impose substantial fines and criminal sanctions for violations, and may 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 would continue until the EPA concludes that the cause of the violation had been cured. Listed facilities cannot be used in performing any U.S. Government contract while they are listed by the EPA.

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, 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 would 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. Resolution of these matters may require material future cash payments and/or future material charges against our operating income.***

The size, type 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 and other litigation, which, if not resolved within established reserves, could have a material adverse effect on our

consolidated financial position, results of operations or cash flows. Any claims and 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 to adequately 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. The U.S. Government has certain rights to use certain intellectual property that we develop in performance of government contracts, and it may use or authorize others to use such intellectual property. Our intellectual property is 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 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.

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

  We endeavor to identify and obtain in established markets insurance agreements to cover significant risks and liabilities (including, for example, natural disasters and product liability). Not every risk or liability can be protected by insurance, and, for insurable risks, the limits of coverage reasonably obtainable in the market may not be sufficient to cover all actual losses or liabilities incurred, including for example, a catastrophic earthquake claim.

  Additionally, disputes with insurance carriers over coverage may affect the timing of cash flows and, if litigation with the carrier becomes necessary, an outcome unfavorable to us may have a material adverse effect on our financial position, results of operations, or cash flows.

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

  As part of our overall strategy, we may, from time to time, acquire a minority or majority interest in a business. These investments are made upon careful analysis and due diligence procedures designed to achieve a desired return or strategic objective. These procedures often involve certain assumptions and judgment in determining acquisition price. Even after careful integration efforts, actual operating results may vary significantly from initial estimates. Goodwill accounts for approximately half of our recorded total assets. We evaluate goodwill amounts for impairment annually, or when evidence of potential impairment exists. The annual impairment test is based on several factors requiring judgment. Principally, a significant decrease in expected cash flows or changes in market conditions may indicate potential impairment of recorded goodwill. Adverse equity market conditions that result in a decline in market multiples and our stock price could result in an impairment of goodwill and/or other intangible assets. We continue to monitor the recoverability of the carrying value of our goodwill and other long-lived assets.

- ***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 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 and the management of the transacted operations. Accordingly, our financial results could be adversely affected from unanticipated performance issues, transaction-related charges, amortization of expenses related to intangibles, charges for impairment of long-term assets and partner performance. Although we believe that we have established appropriate and adequate 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 ability to access cost-effective sources of funding and expose us to risks associated with the financial viability of suppliers and the ability of counterparties to perform on financial instruments.***

  The financial and credit markets in 2008 and 2009 experienced high levels of volatility and disruption, reducing the availability of credit for certain issuers. Historically, we have occasionally accessed these markets to support certain business activities, including acquisitions, capital expansion projects, refinancing existing debt and issuing letters of credit. In the future, we may not be able to obtain capital market financing or bank financing when needed on favorable terms, or at all, which could have a material adverse effect on our financial position, results of operations, or cash flows.

  A tightening of credit could also 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.

  We have executed transactions with counterparties in the financial services industry, including brokers and dealers, commercial banks, investment banks and other institutional parties. These transactions expose us to potential credit risk in the event of counterparty default.

- ***Pension and medical expenses associated with our retirement benefit plans may fluctuate significantly depending upon changes in actuarial assumptions, future market 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 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. For example, the recent volatility in the financial markets resulted in lower than expected returns on our pension plan assets in 2008, which resulted in higher pension costs in subsequent years.

  Additionally, due to government regulations, pension plan cost recoveries under our government contracts may occur in different periods from when those pension costs are accrued for financial statement purposes or when pension funding is made. Timing differences between pension costs accrued for financial statement purposes or when pension funding occurs compared to when such costs are recoverable as allowable costs under our government contracts could have a material adverse effect on our cash flow from operations. In May 2010, the U.S. Cost Accounting Standards ("CAS") Board published a Notice of Proposed Rulemaking

("NPRM") that, if adopted, would provide a framework to partially harmonize the CAS rules with the Pension Protection Act of 2006 ("PPA") funding requirements. As with the Advance Notice of Proposed Rulemaking ("ANPRM") that was issued on September 2, 2008, the NPRM would "harmonize" by partially mitigating the mismatch between CAS costs and PPA-amended ERISA minimum funding requirements. Compared to the ANPRM, the NPRM simplifies the rules and the transition process, and results in an acceleration of allowable CAS pension costs over the next five years as compared with our current CAS pension costs. Until the final rule is published, and to the extent that the final rule does not completely eliminate mismatches between ERISA funding requirements and CAS pension costs, government contractors maintaining defined benefit pension plans will continue to experience a timing mismatch between required contributions and pension expenses recoverable under CAS. The CAS Board may issue its final rule in 2011. The final rule is expected to apply to contracts starting the year following the award of the first CAS covered contract after the effective date of the new rule. This would mean the rule would most likely apply to our contracts in 2012. We anticipate that contractors will be entitled to an equitable adjustment for any additional CAS contract costs resulting from the final rule.

- ***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. In addition, timing differences in the recognition of income from contracts for financial statement purposes and for income tax regulations can cause uncertainty with respect to the timing of income tax payments, which can have a significant impact on cash flow in a particular period. 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. 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 affect our income tax expense, profitability and cash flow.

Risks Relating to the Spin-Off

We face the following risks in connection with the spin-off of HII, which we completed in March 2011:

- ***If all or any portion of the spin-off transaction 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.***

  A letter ruling from the IRS and an opinion of counsel were obtained confirming that we and our shareholders will 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 will recognize gain or loss with respect to such cash. The ruling and the opinion rely 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 such factual statements or representations in the IRS ruling or the opinion to be incomplete or untrue or cause the facts on which the IRS ruling or the opinion is based, to be materially different from the facts at the time of the spin-off transaction. If any of the factual statements or representations in the IRS ruling or the opinion are

incomplete or untrue, or if the facts upon which the IRS ruling or the opinion is based are materially different from the facts at the time of the spin-off, we and our shareholders may not be able to rely on the IRS ruling or the opinion 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 within two years following the spin-off 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 in the conduct of a substantial part of our existing business; or, we or HII repurchase shares in excess of specified levels (which substantially exceed our historical repurchase activity level). If such tax were incurred, the tax liability would be substantial. HII has agreed not to undertake transactions that could reasonably be expected to trigger such tax, and we intend to avoid any such transactions.

- ***The spin-off transaction 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 us will be 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 the parties, and require that we assume responsibility for obligations allocated to HII (for example, tax and/or environmental liabilities), particularly if HII were to refuse or were unable to pay or perform the subject allocated 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. The indemnity 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 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, indemnities that we may be required to provide HII are not subject to any cap, may be significant, and could negatively impact our business. These risks could negatively affect our business and could have a material adverse effect our financial position, results of operations or cash flows.

- ***We may be unable to achieve some or all of the benefits that we expect to achieve as a result of the spin-off transaction.***

We undertook the spin-off of our Shipbuilding business because we believe that the spin-off will result in benefits to our shareholders. The anticipated benefits include greater strategic focus of investment resources and management efforts, tailored customer focus, direct and differentiated access to capital markets, enhanced investor choices and facilitating better management of our cost structure. Delays or failures in achieving some or all of these expected benefits could negatively affect our business and have a material adverse effect on our financial position results of operations or cash flows.

NORTHROP GRUMMAN CORPORATION

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Purchases of Equity Securities – The table below summarizes our repurchases of common stock during the three months ended March 31, 2011:

Period	Total Number of Shares Purchased(1)	Average Price Paid per Share(2)	Total 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)
January 1 through January 31, 2011	99,069	$ 66.19	99,069	$ 1,755
February 1 through February 28, 2011	100	68.01	100	1,755
March 1 through March 31, 2011				1,755
Total	**99,169**	**$ 66.19**	**99,169**	**$ 1,755(1)**

(1) On June 16, 2010, the company's board of directors authorized a share repurchase program of up to $2 billion of the company's common stock. As of March 31, 2011, the company had $1.76 billion remaining under this authorization for share repurchases. See Note 3 to the condensed consolidated financial statements in Part I, Item 1 for action taken by the board of directors in April 2011 to increase this authorization.

(2) Includes commissions paid and calculated as the average price per share since the repurchase program authorization date.

Share repurchases take place at management's discretion or under pre-established non-discretionary programs from time to time, depending on market conditions, in the open market, and in privately negotiated transactions. The company retires its common stock upon repurchase and has not made any purchases of common stock other than in connection with these publicly announced repurchase programs.

Item 3. Defaults Upon Senior Securities

No information is required in response to this item.

Item 5. Other Information

In anticipation of the spin-off of HII, we completed a holding company reorganization on March 30, 2011 to create a new holding company named Northrop Grumman Corporation. In connection with the spin-off of HII, we entered into supplemental indentures to each of our outstanding indentures to substitute the new Northrop Grumman Corporation for the former Northrop Grumman Corporation. These supplemental indentures are filed as Exhibits 4.1 to 4.10 to this Form 10-Q.

Item 6. Exhibits

2.1 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 dated March 29, 2011 and filed April 4, 2011)

2.2 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 Corporation (incorporated by reference to Exhibit 10.2 to Form 8-K dated March 29, 2011 and filed April 4, 2011)

NORTHROP GRUMMAN CORPORATION

*3.1	Restated Certificate of Incorporation of Northrop Grumman Corporation
3.2	Certificate of Amendment of Restated Certificate of Incorporation of Northrop Grumman Corporation (formerly New P., Inc.), dated March 30, 2011 (incorporated by reference to Exhibit 3.1 to Form 8-K dated March 29, 2011 and filed April 4, 2011)
*3.3	Restated Bylaws of Northrop Grumman Corporation (formerly New P, Inc.)
*4.1	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 8-K dated October 20, 1994 and filed October 25, 1994)
*4.2	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 4.1 to Form 8-K dated October 20, 1994 and filed October 25, 1994)
*4.3	Third Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), The Bank of New York Mellon (formerly known as The Bank of New York) as trustee, Titan II, Inc. (formerly known as Northrop Grumman Corporation), and Titan Holdings II, L.P., to Indenture dated April 13, 1998, between Litton Industries, Inc. and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.1 to Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 1998, filed June 15, 1998)
*4.4	Fourth Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), The Bank of New York Mellon (formerly known as The Bank of New York) as trustee, Titan Holdings II, L.P., and Northrop Grumman Corporation (formerly known as New P., Inc.), to Indenture dated April 13, 1998, between Litton Industries, Inc. and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.1 to Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 1998, filed June 15, 1998)
*4.5	Third Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), The Bank of New York Mellon (formerly known as The Bank of New York), as trustee, Titan II, Inc. (formerly known as Northrop Grumman Corporation), and Titan Holdings II, L.P., to Senior Indenture dated December 15, 1991, among Litton Industries, Inc., Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.1 to Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 1996, filed June 11, 1996)
*4.6	Fourth Supplemental Indenture dated as of March 30, 2011 by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), The Bank of New York Mellon (formerly known as The Bank of New York) as trustee, Titan Holdings II, L.P., and Northrop Grumman Corporation (formerly known as New P, Inc.), to Senior Indenture dated December 15, 1991, among Litton Industries, Inc., Northrop Grumman Corporation, Northrop Grumman Systems Corporation and The Bank of New York, as trustee (incorporated by reference to Exhibit 4.1 to Form 10-Q of Litton Industries, Inc. for the quarter ended April 30, 1996, filed June 11, 1996)

NORTHROP GRUMMAN CORPORATION

*4.7	Tenth Supplemental Indenture dated as of March 30, 2011, by and among Northrop Grumman Systems Corporation (successor-in-interest to Northrop Grumman Space & Mission Systems Corp. and TRW, Inc.), The Bank of New York Mellon, as successor trustee to JPMorgan Chase Bank and to Mellon Bank, N.A., Titan II Inc. (formerly known as Northrop Grumman Corporation), and Titan Holdings II, L.P., to Indenture between TRW Inc. and Mellon Bank, N.A., as trustee, dated as of May 1, 1986 (incorporated by reference to Exhibit 2 to the Form 8-A Registration Statement of TRW Inc. dated July 3, 1986)
*4.8	Eleventh Supplemental Indenture dated as of March 30, 2011, by and among Northrop Grumman Systems Corporation (successor-in-interest to Northrop Grumman Space & Mission Systems Corp. and TRW Inc.), The Bank of New York Mellon, as successor trustee to JPMorgan Chase Bank and to Mellon Bank, N.A., Titan Holdings II, L.P., and Northrop Grumman Corporation (formerly known as New P, Inc.) to Indenture between TRW Inc. and Mellon Bank, N.A., as trustee, dated as of May 1, 1986 (incorporated by reference to Exhibit 2 to the Form 8-A Registration Statement of TRW Inc. dated July 3, 1986)
*4.9	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 4.1 to Form 8-K dated and filed November 21, 2001)
*4.10	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 4.1 to Form 8-K dated and filed November 21, 2001)
+10.1	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 dated February 15, 2011 and filed February 22, 2011)
+10.2	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 dated February 15, 2011 and filed February 22, 2011)
+10.3	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 dated February 15, 2011 and filed February 22, 2011)
+10.4	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 dated February 15, 2011 and filed February 22, 2011)
+10.5	Appendix I to the Northrop Grumman Supplemental Plan 2 (Amended and Restated Effective as of January 1, 2009): Officers Supplemental Executive Retirement Program II (Amended and Restated Effective as of January 1, 2011) (incorporated by reference to Exhibit 10(i)(v) to Form 10-K for the year ended December 31, 2010, filed February 9, 2011)
+10.6	Northrop Grumman Electronic Systems Executive Pension Plan (Amended and Restated Effective as of January 1, 2011) (incorporated by reference to Exhibit 10(l) to Form 10-K for the year ended December 31, 2010, filed February 9, 2011)
+10.7	Northrop Grumman Deferred Compensation Plan (Amended and Restated Effective as of January 1, 2011) (incorporated by reference to Exhibit 10(u) to Form 10-K for the year ended December 31, 2010, filed February 9, 2011)
+10.8	Northrop Grumman Savings Excess Plan (Amended and Restated Effective as of January 1, 2011) (incorporated by reference to Exhibit 10(x) to Form 10-K for the year ended December 31, 2010, filed February 9, 2011)

NORTHROP GRUMMAN CORPORATION

+10.9	Compensatory Arrangements of Certain Officers (Named Executive Officers) for 2010 (incorporated by reference to Item 5.02(e) of Form 8-K dated February 15, 2011 and filed February 22, 2011)
*12(a)	Computation of Ratio of Earnings to Fixed Charges
*15	Letter from Independent Registered Public Accounting Firm
*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 Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, formatted in XBRL (Extensible Business Reporting Language); (i) the Condensed Consolidated Statements of Operations, (ii) Condensed Consolidated Statements of Financial Position, (iii) Condensed Consolidated Statements of Cash Flows, (iv) Condensed Consolidated Statements of Changes in Shareholders' Equity, and (v) Notes to Condensed Consolidated Financial Statements

+	Management contract or compensatory plan or arrangement
*	Filed with this Report
**	Furnished with this Report

NORTHROP GRUMMAN CORPORATION

SIGNATURES

Pursuant to the requirements 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.

NORTHROP GRUMMAN CORPORATION
(Registrant)

By: **/s/ Kenneth N. Heintz**
Kenneth N. Heintz
Corporate Vice President, Controller and Chief Accounting Officer
(Principal Accounting Officer)

Date: April 26, 2011

Exhibit 3.1

RESTATED CERTIFICATE OF INCORPORATION

OF

NEW P, INC.

(Originally incorporated on August 4, 2010
under the name New P, Inc.)

FIRST: The name of the corporation is New P, Inc. (the "Corporation").

SECOND: The address of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle. The name and address of the Corporation's registered agent in the State of Delaware is The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, State of Delaware 19801.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which corporations may now or hereafter be organized under the General Corporation Law of the State of Delaware.

FOURTH: 1. The total number of shares of stock which the Corporation shall have authority to issue is Eight Hundred Ten Million (810,000,000), consisting of Eight Hundred Million (800,000,000) shares of Common Stock, par value One Dollar ($1.00) per share (the "Common Stock"), and Ten Million (10,000,000) shares of Preferred Stock, par value One Dollar ($1.00) per share (the "Preferred Stock").

2. Shares of Preferred Stock may be issued from time to time in one or more classes or series, each of which class or series shall have such distinctive designation or title as shall be fixed by resolution of the Board of Directors of the Corporation (the "Board of Directors") prior to the issuance of any shares thereof. Each such class or series of Preferred Stock shall have such voting powers, full or limited, or no voting powers, and such preferences and relative, participating, optional or other special rights and such qualifications, limitations or restrictions thereof, as shall be stated in such resolution providing for the issuance of such class or series of Preferred Stock as may be adopted from time to time by the Board of Directors prior to the issuance of any shares thereof pursuant to the authority hereby expressly vested in it, all in accordance with the laws of the State of Delaware. The Board of Directors is further authorized to increase or decrease (but not below the number of shares of such class or series then outstanding) the number of shares of any class or series subsequent to the issuance of shares of that class or series.

FIFTH: In furtherance and not in limitation of the powers conferred by statute and subject to Article Sixth hereof, the Board of Directors is expressly authorized to adopt, repeal, rescind, alter or amend in any respect the bylaws of the Corporation (the "Bylaws").

SIXTH: Notwithstanding Article Fifth hereof, the Bylaws may be adopted, repealed, rescinded, altered or amended in any respect by the stockholders of the Corporation, but only by the affirmative vote of the holders of not less than a majority of the voting power of all outstanding shares of capital stock entitled to vote thereon, voting as a single class, and by the holders of any one or more classes or series of capital stock entitled to vote thereon as a separate class pursuant to one or more resolutions adopted by the Board of Directors in accordance with Section 2 of Article Fourth hereof.

SEVENTH: The business and affairs of the Corporation shall be managed by and under the direction of the Board of Directors. Except as may otherwise be provided pursuant to Section 2 of Article Fourth hereof in connection with rights to elect additional directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, the exact number of directors of the Corporation shall be fixed from time to time by the Board of Directors.

EIGHTH: All directors of the Corporation shall be of one class and shall serve for a term ending at the annual meeting following the annual meeting at which the director was elected. Notwithstanding the foregoing sentence of this Article Eighth: each director shall serve until his or her successor is elected and qualified or until his or her death, resignation or removal; no decrease in the authorized number of directors shall shorten the term of any incumbent director; and additional directors, elected pursuant to Section 2 of Article Fourth hereof in connection with rights to elect such additional directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, shall serve for such term or terms and pursuant to such other provisions as are specified in the resolution of the Board of Directors establishing such class or series.

NINTH: Except as may otherwise be provided pursuant to Section 2 of Article Fourth hereof in connection with rights to elect additional directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, newly created directorships resulting from any increase in the number of directors, or any vacancies on the Board of Directors resulting from death, resignation, removal or other causes, shall be filled solely by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for a term that shall end at the first annual meeting following his or her election and shall remain in office until such director's successor shall have been elected and qualified or until such director's death, resignation or removal, whichever first occurs.

TENTH: RESERVED.

ELEVENTH: Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual meeting or at a special meeting of stockholders of the Corporation, unless the Board of Directors authorizes such action to be taken by the written consent of the holders of outstanding shares of capital stock having not less than the minimum voting power that would be necessary to authorize or take such action at a meeting of stockholders at which all shares

entitled to vote thereon were present and voted, provided all other requirements of applicable law and this Restated Certificate of Incorporation have been satisfied.

TWELFTH: Subject to the terms of any class or series of Preferred Stock, special meetings of the stockholders of the Corporation may be called by the Board of Directors (or an authorized committee thereof) or the Chairperson of the Board of Directors and shall be called by the Secretary of the Corporation following the Secretary's receipt of written requests to call a meeting from the holders of at least 25% of the voting power of the outstanding capital stock of the Corporation who have delivered such requests in accordance with and subject to the provisions of the Bylaws (as amended from time to time), including any limitations set forth in the Bylaws on the ability to make such a request for such a special meeting. Except as otherwise required by law or provided by the terms of any class or series of Preferred Stock, special meetings of stockholders of the Corporation may not be called by any other person or persons.

THIRTEENTH: Meetings of stockholders of the Corporation may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision of applicable law) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws.

FOURTEENTH: The Corporation reserves the right to adopt, repeal, rescind, alter or amend in any respect any provision contained in this Restated Certificate of Incorporation in the manner now or hereafter prescribed by applicable law, and all rights conferred on stockholders herein are granted subject to this reservation.

FIFTEENTH: A director of the Corporation shall not be personally liable to the Corporation or to its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or to its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of the State of Delaware, or (iv) for any transaction from which the director derives any improper personal benefit. If, after approval of this Article by the stockholders of the Corporation, the General Corporation Law of the State of Delaware is amended to authorize the further elimination or limitation of the liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

Any repeal or modification of this Article by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation which restates and integrates and further amends the provisions of the Restated Certificate of Incorporation of this Corporation, and which has been duly adopted in accordance with Sections 228, 242 and 245 of the Delaware General Corporation Law, has been executed by its duly authorized officer as of the date set forth below,

NEW P, INC.

By: /s/ Mark Rabinowitz
Name: Mark Rabinowitz
Title: President & Treasurer

Date: March 30, 2011

RESTATED BYLAWS
OF
NEW P, INC.
(A Delaware Corporation)

ARTICLE I
OFFICES

Section 1.01. Registered Office. The registered office of New P, Inc. (the "Corporation") in the State of Delaware shall be at Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, and the name of the registered agent at that address shall be The Corporation Trust Company.

Section 1.02. Principal Executive Office. The principal executive office of the Corporation shall be located at 1840 Century Park East, Los Angeles, California 90067. The Board of Directors of the Corporation (the "Board of Directors") may change the location of said principal executive office from time to time.

Section 1.03. Other Offices. The Corporation may also have an office or offices at such other place or places, either within or without the State of Delaware, as the Board of Directors may from time to time determine or as the business of the Corporation may require.

ARTICLE II
MEETINGS OF STOCKHOLDERS

Section 2.01. Annual Meetings. The annual meeting of stockholders of the Corporation shall be held on such date and at such time as the Board of Directors shall determine. At each annual meeting of stockholders, directors shall be elected in accordance with the provisions of Section 3.04 hereof and any proper business may be transacted in accordance with the provisions of Section 2.08 hereof.

Section 2.02. Special Meetings.

(a) Subject to the terms of any class or series of Preferred Stock, special meetings of the stockholders of the Corporation may be called by the Board of Directors (or an authorized committee thereof) or the Chairperson of the Board of Directors and shall be called by the Secretary of the Corporation following the Secretary's receipt of written requests to call a meeting from the holders of at least 25% of the voting power (the "Required Percentage") of the outstanding capital stock of the Corporation (the "Voting Stock") who shall have delivered such requests in accordance with this bylaw. Except as otherwise required by law or provided by the terms of any class or series of Preferred Stock, special meetings of stockholders of the Corporation may not be called by any other person or persons.

(b) A stockholder may not submit a written request to call a special meeting unless such stockholder is a holder of record of Voting Stock on the record date fixed to

determine the stockholders entitled to request the call of a special meeting. Any stockholder seeking to call a special meeting to transact business shall, by written notice to the Secretary, request that the Board of Directors fix a record date. A written request to fix a record date shall include all of the information that must be included in a written request to call a special meeting from a stockholder who is not a Solicited Stockholder, as set forth in the succeeding paragraph (c) of this bylaw. The Board of Directors may, within 10 days of the Secretary's receipt of a request to fix a record date, fix a record date to determine the stockholders entitled to request the call of a special meeting, which date shall not precede, and shall not be more than 10 days after, the date upon which the resolution fixing the record date is adopted. If a record date is not fixed by the Board of Directors, the record date shall be the date that the first written request to call a special meeting is received by the Secretary with respect to the proposed business to be conducted at a special meeting.

(c) Each written request for a special meeting shall include the following: (i) the signature of the stockholder of record signing such request and the date such request was signed, (ii) a brief description of the business desired to be brought before the meeting and the reasons for conducting such business at the meeting, and (iii) for each written request submitted by a person or entity other than a Solicited Stockholder, as to the stockholder signing such request and the beneficial owner (if any) on whose behalf such request is made (each, a "party"):

(1) the name and address of such party;

(2) the class, series and number of shares of the Corporation that are owned beneficially and of record by such party (which information set forth in this clause shall be supplemented by such party not later than 10 days after the record date for determining the stockholders entitled to notice of the special meeting to disclose such ownership as of such record date);

(3) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such party, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such party with respect to shares of stock of the Corporation (which information set forth in this clause shall be supplemented by such party not later than 10 days after the record date for determining the stockholders entitled to notice of the special meeting to disclose such ownership as of such record date);

(4) any other information relating to each such party that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for the proposal in a contested election pursuant to Section 14 of the Securities Exchange Act of 1934, as amended (such act, and the rules and regulations promulgated thereunder, the "Exchange Act");

(5) any material interest of such party in one or more of the items of business proposed to be transacted at the special meeting; and

(6) a statement whether or not any such party will deliver a proxy statement and form of proxy to holders of at least the percentage of voting power of all of the shares of capital stock of the Corporation required under applicable law to carry the proposal (such statement, a "Solicitation Statement").

For purposes of this bylaw, "Solicited Stockholder" means any stockholder that has provided a request in response to a solicitation made pursuant to, and in accordance with, Section 14(a) of the Exchange Act by way of a solicitation statement filed on Schedule 14A.

A stockholder may revoke a request to call a special meeting by written revocation delivered to the Secretary at any time prior to the special meeting; provided, however, that if any such revocation(s) are received by the Secretary after the Secretary's receipt of written requests from the holders of the Required Percentage of Voting Stock, and as a result of such revocation(s), there no longer are unrevoked requests from the Required Percentage of Voting Stock to call a special meeting, the Board of Directors shall have the discretion to determine whether or not to proceed with the special meeting. A business proposal shall not be presented for stockholder action at any special meeting if (i) any stockholder or beneficial owner who has provided a Solicitation Statement with respect to such proposal does not act in accordance with the representations set forth therein or (ii) the business proposal appeared in a written request submitted by a stockholder who did not provide the information required by the preceding clause (c)(2) of this bylaw in accordance with such clause.

(d) The Secretary shall not accept, and shall consider ineffective, a written request from a stockholder to call a special meeting (i) that does not comply with the preceding provisions of this bylaw, (ii) that relates to an item of business that is not a proper subject for stockholder action under applicable law, (iii) if such request is delivered between the time beginning on the 61st day after the earliest date of signature on a written request that has been delivered to the Secretary relating to an identical or substantially similar item (such item, a "Similar Item") and ending on the one-year anniversary of such earliest date, (iv) if a Similar Item will be submitted for stockholder approval at any stockholder meeting to be held on or before the 90th day after the Secretary receives such written request, or (v) if a Similar Item has been presented at the most recent annual meeting or at any special meeting held within one year prior to receipt by the Secretary of such request to call a special meeting.

(e) The Board of Directors shall determine in good faith whether the requirements set forth in subparagraphs (d)(ii) through (v) have been satisfied. Either the Secretary or the Board of Directors shall determine in good faith whether all other requirements set forth in this bylaw have been satisfied. Any determination made pursuant to this paragraph shall be binding on the Corporation and its stockholders.

(f) The Board of Directors shall determine the place, and fix the date and time, of any special meeting called at the request of one or more stockholders, and, with respect to all other special meetings, the date and time of a special meeting shall be determined by the person or body calling the meeting. The Board of Directors may submit its own proposal or proposals for consideration at a special meeting called by the Chairperson of the Board of Directors or called at the request of one or more stockholders. The record date or record dates for a special meeting shall be fixed in accordance with Section 213 (or its successor provision) of the Delaware General Corporation Law (the "DGCL"). Business transacted at any special meeting shall be limited to the purposes stated in the notice of such meeting.

Section 2.03. Place of Meetings.

(a) Each annual or special meeting of stockholders shall be held at such location as may be determined by the Board of Directors or, if no such determination is made, at such place as may be determined by the Chairperson of the Board of Directors. If no location is so determined, the annual or special meeting shall be held at the principal executive office of the Corporation. Notwithstanding the foregoing, the Board of Directors may, in its sole discretion, determine that an annual meeting shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 2.03(b).

(b) If authorized by the Board of Directors in its sole discretion, and subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxy holders not physically present at a meeting of stockholders may, by means of remote communication:

(1) participate in a meeting of stockholders; and

(2) be deemed present in person and vote at a meeting of stockholders, whether such meeting is to be held at a designated place or solely by means of remote communication; provided that (A) the Corporation implements reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxy holder, (B) the Corporation implements reasonable measures to provide such stockholders and proxy holders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (C) if any stockholder or proxy holder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action is maintained by the Corporation.

Section 2.04. Notice of Meetings.

(a) Unless otherwise required by law, written notice of each annual or special meeting of stockholders stating the date and time when, the place, if any, where it is to be held, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the information

required to gain access to the list of stockholders entitled to vote, if such list is to be open for examination on a reasonably accessible electronic network, and the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, shall be given not less than 10 nor more than 60 days before the date on which the meeting is to be held, to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting. The purpose or purposes for which the meeting is called may, in the case of an annual meeting, and shall, in the case of a special meeting, also be stated. If mailed, notice is given when it is deposited in the United States mail, postage prepaid, directed to a stockholder at such stockholder's address as it shall appear on the records of the Corporation.

(b) Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the Corporation under any provision of the DGCL, the Certificate of Incorporation of the Corporation (the "Certificate") or these Bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if (i) the Corporation is unable to deliver by electronic transmission two consecutive notices given by the Corporation in accordance with such consent, and (ii) such inability becomes known to the Secretary or an assistant secretary of the Corporation or to the transfer agent or other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action. Notice given pursuant to this Section 2.04(b) shall be deemed given: (i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice, (ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice, (iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (1) such posting and (2) the giving of such separate notice, and (iv) if by any other form of electronic transmission, when directed to the stockholder. For purposes of these Bylaws, "electronic transmission" means any form of communication not directly involving the physical transmission of paper that creates a record the recipient may retain, retrieve and review and reproduce in paper form through an automated process.

(c) Without limiting the manner by which notice otherwise may be given effectively to stockholders, but subject to Section 233(d) of the DGCL (or any successor provision thereof), any notice to stockholders given by the Corporation under any provision of the DGCL, the Certificate or these Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any stockholder who fails to object in writing to the Corporation, within 60 days of having been given written notice by the Corporation of its intention to send the single notice described in the preceding sentence, shall be deemed to have consented to receiving such single written notice.

Section 2.05. Waiver of Notice. Whenever notice is required to be given under any provision of the DGCL or the Certificate or these Bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting will constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened.

Section 2.06. Adjourned Meetings. When a meeting is adjourned to another time or place, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than 30 days after the date for which the meeting was originally noticed, then notice of the place, if any, date and time of the adjourned meeting and the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting, shall be given in conformity herewith. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix a new record date for notice of such adjourned meeting in accordance with Section 213(a) of the DGCL, and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting. At any adjourned meeting, any business may be transacted which might have been transacted at the original meeting.

Section 2.07. Conduct of Meetings. All annual and special meetings of stockholders shall be conducted in accordance with such rules and procedures as the Board of Directors may determine subject to the requirements of applicable law and, as to matters not governed by such rules and procedures, as the chairperson of such meeting shall determine. Such rules or procedures, whether adopted by the Board of Directors or prescribed by the chairperson of such meeting, may include without limitation the following: (a) the establishment of an agenda or order of business for the meeting, (b) rules and procedures for maintaining order at the meeting and the safety of those present, (c) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chairperson of the meeting shall determine, (d) restrictions on entry to the meeting after the time fixed for commencement thereof, and (e) limitations on the time allotted to questions or comments by participants. Unless and to the extent determined by the Board of Directors or the chairperson of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

The chairperson of any annual or special meeting of stockholders shall be either the Chairperson of the Board of Directors or any person designated by the Chairperson of the Board of Directors. The Secretary, or in the absence of the Secretary, a person designated by the chairperson of the meeting, shall act as secretary of the meeting.

Section 2.08. Notice of Stockholder Business and Nominations. Nominations of persons for election to the Board of Directors and the proposal of business to be

transacted by the stockholders may be made at an annual meeting of stockholders (a) pursuant to the Corporation's proxy materials with respect to such meeting, (b) by or at the direction of the Board of Directors or (c) by any stockholder of record of the Corporation (the "Record Stockholder") at the time of the giving of the notice required in the following paragraph, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this section. For the avoidance of doubt, the foregoing clause (c) shall be the exclusive means for a stockholder to bring nominations or business (other than business included in the Corporation's proxy materials pursuant to Rule 14a-8 under the Exchange Act.

For nominations or business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of the foregoing paragraph, (1) the Record Stockholder must have given timely notice thereof in writing to the Secretary of the Corporation, (2) any such business must be a proper matter for stockholder action under applicable law, and (3) the Record Stockholder and the beneficial owner, if any, on whose behalf any such proposal or nomination is made, must have acted in accordance with the representations set forth in the Solicitation Statement required by these Bylaws. To be timely, a Record Stockholder's notice shall be received by the Secretary at the principal executive offices of the Corporation not less than 90 or more than 120 days prior to the one-year anniversary (the "Anniversary") of the date on which the Corporation first mailed its proxy materials for the preceding year's annual meeting of stockholders; provided, however, that if the annual meeting is convened more than 30 days prior to or delayed by more than 30 days after the Anniversary of the preceding year's annual meeting, or if no annual meeting was held in the preceding year, notice by the Record Stockholder to be timely must be so received not later than the close of business on the later of (i) the 135th day before such annual meeting or (ii) the 10th day following the day on which public announcement of the date of such meeting is first made. Notwithstanding anything in the preceding sentence to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board made by the Corporation at least 10 days before the last day a Record Stockholder may deliver a notice of nomination in accordance with the preceding sentence, a Record Stockholder's notice required by this bylaw shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the Corporation. In no event shall an adjournment of an annual meeting, or the postponement of a special meeting for which notice has been given, commence a new time period for the giving of a stockholder's notice as described herein.

Such Record Stockholder's notice shall set forth: (a) if such notice pertains to the nomination of directors, as to each person whom the Record Stockholder proposes to nominate for election or reelection as a director (i) all information relating to such person as would be required to be disclosed in solicitations of proxies for the election of such nominees as directors pursuant to Regulation 14A under the Exchange Act and such person's written consent to serve as a director if elected, and (ii) a statement whether such

person, if elected, intends to tender, promptly following such person's election, an irrevocable resignation effective upon such person's failure to receive the required vote for reelection at any future meeting at which such person would face reelection and upon acceptance of such resignation by the Board of Directors, in accordance with the Corporation's Principles of Corporate Governance; (b) as to any business that the Record Stockholder proposes to bring before the meeting, a brief description of such business, the reasons for conducting such business at the meeting and any material interest in such business of such Record Stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to (1) the Record Stockholder giving the notice and (2) the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "party") (i) the name and address of each such party, as they appear on the Corporation's books; (ii) the class, series and number of shares of the Corporation that are owned beneficially and of record by each such party (which information set forth in this clause shall be supplemented by such stockholder or such beneficial owner, as the case may be, not later than 10 days after the record date for determining the stockholders entitled to notice of the meeting to disclose such ownership as of such record date); (iii) a description of any agreement, arrangement or understanding with respect to the nomination between or among such stockholder and such beneficial owner, any of their respective affiliates or associates, and any others acting in concert with any of the foregoing; (iv) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such Record Stockholder or such beneficial owners, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder and such beneficial owner, with respect to shares of stock of the Corporation (which information set forth in this clause shall be supplemented by such party not later than 10 days after the record date for determining the stockholders entitled to notice of the special meeting to disclose such ownership as of such record date); (v) any other information relating to each such party that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Section 14 of the Exchange Act; (vi) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting; and (vii) a statement whether or not each such party will deliver a proxy statement and form of proxy to holders of, in the case of a proposal, at least the percentage of voting power of all of the shares of capital stock of the Corporation required under applicable law to carry the proposal or, in the case of a nomination or nominations, at least the percentage of voting power of all of the shares of capital stock of the Corporation reasonably believed by the Record Stockholder or the beneficial holder, as the case may be, to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder and/or intends otherwise to solicit proxies from stockholders in support of such proposal or nomination (such statement, a "Solicitation Statement").

Only persons nominated in accordance with the procedures set forth in this Section 2.08 shall be eligible to serve as directors and only such business shall be

conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 2.08. The chairperson of the meeting shall have the power and the duty to determine whether a nomination or any business proposed to be brought before the meeting has been made in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defectively proposed business or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting in accordance with Section 2.02. The notice of such special meeting shall include the purpose for which the meeting is called. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (a) by or at the direction of the Board of Directors or (b) by any stockholder of record of the Corporation at the time of giving of notice provided for in this paragraph, who shall be entitled to vote at the meeting and who delivers a written notice to the Secretary setting forth the information set forth in clauses (a) and (c) of the third paragraph of this Section 2.08. Nominations by stockholders of persons for election to the Board of Directors may be made at a special meeting of stockholders only if such stockholder's notice required by the preceding sentence shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the later of the 135th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall an adjournment of a special meeting, or a postponement of a special meeting for which notice has been given, commence a new time period for the giving of a record stockholder's notice. A person shall not be eligible for election or reelection as a director at a special meeting unless the person is nominated (i) by or at the direction of the Board of Directors or (ii) by a record stockholder in accordance with the notice procedures set forth in this Section 2.08.

For purposes of this section, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

Notwithstanding the foregoing provisions of this Section 2.08, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to matters set forth in this Section 2.08. Nothing in this Section 2.08 shall be deemed to affect any rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

Section 2.09. Quorum. At any meeting of stockholders, the presence, in person or by proxy, of the holders of record of a majority of the voting power of the shares then issued and outstanding and entitled to vote at the meeting shall constitute a quorum for

the transaction of business. Where a separate vote by a class or classes or series is required, a majority of the voting power of the shares of such class or classes or series present in person or represented by proxy shall constitute a quorum entitled to take action with respect to the vote on that matter. In the absence of a quorum, the chairperson of the meeting may adjourn the meeting from time to time. At any reconvened meeting following such an adjournment at which a quorum shall be present, any business may be transacted which might have been transacted at the original meeting.

Section 2.10. Votes Required. When a quorum is present at a meeting, a matter submitted for stockholder action shall be approved if the votes cast "for" the matter exceed the votes cast "against" such matter, unless a greater or different vote is required by statute, any applicable law or regulation (including the applicable rules of any stock exchange), the rights of any authorized class of stock, the Certificate or these Bylaws. Unless the Certificate or a resolution of the Board of Directors adopted in connection with the issuance of shares of any class or series of stock provides for a greater or lesser number of votes per share, or limits or denies voting rights, each outstanding share of stock, regardless of class, shall be entitled to one vote on each matter submitted to a vote at a meeting of stockholders.

Section 2.11. Proxies. A stockholder may vote the shares owned of record by such stockholder either in person or by proxy in any manner permitted by law, including by execution of a proxy in writing or by telex, telegraph, cable, facsimile or electronic transmission, by the stockholder or by the duly authorized officer, director, employee or agent of such stockholder. No proxy shall be voted or acted upon after 3 years from its date, unless the proxy provides for a longer period. A duly executed proxy will be irrevocable if it states it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A proxy may be made irrevocable regardless of whether the interest with which it is coupled is an interest in the stock itself or an interest in the Corporation generally.

Any copy, facsimile telecommunication or other reliable reproduction of the writing or transmission created pursuant to this paragraph may be substituted or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire original writing or transmission.

Section 2.12. Stockholder Action. Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual meeting or special meeting of stockholders of the Corporation, unless the Board of Directors authorizes such action to be taken by the written consent of the holders of outstanding shares of stock having not less than the minimum voting power that would be necessary to authorize or take such action at a meeting of stockholders at which all shares entitled to vote thereon were present and voted, provided all other requirements of applicable law and the Certificate have been satisfied.

Section 2.13. List of Stockholders. The Secretary of the Corporation shall, in the manner provided by law, prepare and make (or cause to be prepared and made) a complete list of stockholders entitled to vote at any meeting of stockholders, provided, however, that if the record date for determining the stockholders entitled to vote is less than 10 days before the meeting date, the list shall reflect the stockholders entitled to vote as of the 10th day before the meeting date, arranged in alphabetical order and showing the address of, and the number of shares registered in the name of, each stockholder. Nothing contained in this section shall require the Corporation to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least 10 days prior to the meeting in the manner provided by law. A list of the stockholders entitled to vote at the meeting shall also be produced and kept at the time and place, if any, of the meeting during the duration thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list will also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list will be provided with the notice of the meeting.

The stock ledger shall be the only evidence as to who are the stockholders entitled to examine the list of stockholders or to vote in person or by proxy at any meeting of stockholders.

Section 2.14. Inspectors of Election. In advance of any meeting of stockholders, the Board of Directors may appoint Inspectors of Election to act at such meeting or at any adjournment or adjournments thereof. The Corporation may designate one or more alternate inspectors to replace any inspector who fails to act. If such inspectors are not so appointed or fail or refuse to act, the chairperson of any such meeting may (and, to the extent required by law, shall) make such an appointment. The number of Inspectors of Election shall be 1 or 3. If there are 3 Inspectors of Election, the decision, act or certificate of a majority shall be effective and shall represent the decision, act or certificate of all. No such inspector need be a stockholder of the Corporation. Each inspector, before entering upon the discharge of the duties of inspector, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of such inspector's ability.

The Inspectors of Election shall have such duties and responsibilities as required under Section 231 of the DGCL (or any successor provision thereof).

ARTICLE III
DIRECTORS

Section 3.01. Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

Section 3.02. Number. Except as otherwise fixed pursuant to the provisions of Section 2 of Article Fourth of the Certificate in connection with rights to elect additional

directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, the exact number of directors of the Corporation shall be fixed from time to time by a resolution duly adopted by the Board of Directors.

Section 3.03. Lead Independent Director. At any time the Chairperson of the Board of Directors is not independent as that term is defined under the then applicable rules and regulations of each national securities exchange upon which shares of the stock of the Corporation are listed for trading and of the Securities and Exchange Commission, the independent directors may designate from among them a Lead Independent Director having the duties and responsibilities set forth in the applicable rules of each such national securities exchange and as otherwise determined by the Board of Directors from time to time.

Section 3.04. Election and Term of Office. Except as provided in Section 3.07 hereof and subject to the right to elect additional directors under specified circumstances which may be granted, pursuant to the provisions of Section 2 of Article Fourth of the Certificate, to the holders of any class or series of Preferred Stock, directors shall be elected by the stockholders of the Corporation for a term expiring at the annual meeting of stockholders following their election. A nominee for director shall be elected to the Board of Directors if the votes cast for such nominee's election exceed the votes cast against such nominee's election; provided, however, that directors shall be elected by a plurality of the votes cast at any meeting of stockholders for which (i) the Secretary of the Corporation receives a notice that a stockholder has nominated a person for election to the Board of Directors in compliance with Section 2.08 of these Bylaws and (ii) such nomination has not been withdrawn by such stockholder on or before the 10th day before the Corporation first mails its notice of meeting for such meeting to the stockholders. If directors are to be elected by a plurality of the votes cast, stockholders shall not be permitted to vote against a nominee.

Section 3.05. Resignations. Any director may resign at any time by submitting a resignation to the Corporation in writing or by electronic transmission. Such resignation shall take effect at the time of its receipt by the Corporation unless such resignation is effective at a future time or upon the happening of a future event or events in which case it shall be effective at such time or upon the happening of such event or events. Unless the resignation provides otherwise, the acceptance of a resignation shall not be required to make it effective.

Section 3.06. Removal. Subject to the right to elect directors under specified circumstances which may be granted pursuant to Section 2 of Article Fourth of the Certificate to the holders of any class or series of Preferred Stock, any director may be removed from office with or without cause.

Section 3.07. Vacancies and Additional Directorships. Except as otherwise provided pursuant to Section 2 of Article Fourth of the Certificate in connection with rights to elect additional directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, newly created directorships resulting from any increase in the number of directors and any vacancies on the Board of Directors

resulting from death, resignation, disqualification, removal or other cause shall be filled solely by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for a term that shall end at the first annual meeting following his or her election and until such director's successor shall have been elected and qualified. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 3.08. Meetings. Promptly after, and on the same day as, each annual election of directors by the stockholders, the Board of Directors shall, if a quorum be present, meet in a meeting (the "Organizational Meeting") to elect a Chairperson of the Board of Directors, elect a Lead Independent Directors, if any, appoint members of the standing committees of the Board of Directors, elect officers of the Corporation and conduct other business as appropriate. Additional notice of such meeting need not be given if such meeting is conducted promptly after the annual meeting to elect directors and if the meeting is held in the same location where the election of directors was conducted. Regular meetings of the Board of Directors shall be held at such times and places as the Board of Directors shall determine and as shall be publicized among all directors.

Directors may participate in regular or special meetings of the Board of Directors or any committee designated by the Board of Directors by means of conference telephone or other communications equipment by means of which all other persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Section 3.09. Notice of Meetings. A notice of each regular meeting of the Board of Directors shall not be required. A special meeting of the Board of Directors may be called by the Chairperson of the Board of Directors, the Chief Executive Officer or a majority of the directors then in office and shall be held at such place, if any, on such date and at such time as the person or persons calling such meeting may fix. Notice of special meetings shall be either (i) mailed to each director at least 5 days before the meeting, addressed to the director's usual place of business or to his or her residence address or to an address specifically designated by the director or (ii) given by telephone, telegraph, telex, facsimile or electronic transmission not less than 24 hours before the meeting. The notice need not specify the place of the meeting (if the meeting is to be held at the Corporation's principal executive office) nor the purpose of the meeting, unless otherwise required by law. Unless otherwise indicated in the notice of a meeting, any and all business may be transacted at a meeting of the Board of Directors. Notice of any meeting may be waived in writing, or by electronic transmission, at any time before or after the meeting, and attendance of any director at a meeting shall constitute a waiver of notice of such meeting, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Section 3.10. Action without Meeting. Unless otherwise restricted by the Certificate, any action required or permitted to be taken at any meeting of the Board of

Directors, or of any committee thereof, may be taken without a meeting if all members of the Board of Directors or such committee, as the case may be, consent thereto in writing, or by electronic transmission and such writing or writings or electronic transmission filed with the minutes of the proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 3.11. Quorum. At all meetings of the Board of Directors, directors constituting a majority of the fixed number of directors shall constitute a quorum for the transaction of business. In the absence of a quorum, the directors present, by majority vote and without notice or waiver thereof, may adjourn the meeting to another date, place, if any, and time. At any reconvened meeting following such an adjournment at which a quorum shall be present, any business may be transacted which might have been transacted at the meeting as originally notified.

Section 3.12. Votes Required. Except as otherwise required by applicable law, the Certificate or these Bylaws, the vote of a majority of the directors present at a meeting duly held at which a quorum is present shall be sufficient to pass any measure.

Section 3.13. Place and Conduct of Meetings. Other than the Organizational Meeting, each meeting of the Board of Directors shall be held at the location determined by the person or persons calling such meeting. At any meeting of the Board of Directors, business shall be transacted in such order and manner as the Board of Directors may from time to time determine. The chairperson of any regular or special meeting shall be the Chairperson of the Board of Directors, or in the absence of the Chairperson a person designated by the Board of Directors. The Secretary, or in the absence of the Secretary a person designated by the chairperson of the meeting, shall act as secretary of the meeting.

Section 3.14. Fees and Compensation. Directors shall be paid such compensation as may be fixed from time to time by resolutions of the Board of Directors. Compensation may be in the form of an annual retainer fee or a fee for attendance at meetings, or both, or in such other form or on such basis as the resolutions of the Board of Directors shall fix. Directors shall be reimbursed for all reasonable expenses incurred by them in attending meetings of the Board of Directors and committees appointed by the Board of Directors and in performing compensable extraordinary services. Nothing contained herein shall be construed to preclude any director from serving the Corporation in any other capacity, such as an officer, agent, employee, consultant or otherwise, and receiving compensation therefor.

Section 3.15. Committees of the Board of Directors. The Board of Directors may from time to time designate committees of the Board of Directors, with such lawfully delegable powers and duties as it thereby confers, to serve at the pleasure of the Board of Directors and shall, for those committees and any others provided for herein, elect a director or directors to serve as the member or members, designating, if it desires, other directors as alternate members who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of any member of any committee and any alternate member in his or her place, the member or members of

the committee present at the meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may by unanimous vote appoint another member of the Board of Directors to act at the meeting in the place of the absent or disqualified member.

Section 3.16. Meetings of Committees. Each committee of the Board of Directors shall fix its own rules of procedure and shall act in accordance therewith, except as otherwise provided herein or required by applicable law and any resolutions of the Board of Directors governing such committee. A majority of the members of each committee shall constitute a quorum thereof, except that when a committee consists of one or two members then one member shall constitute a quorum.

Section 3.17. Subcommittees. Unless otherwise provided in the Certificate or the resolutions of the Board of Directors establishing a committee, or in the charter of a committee, a committee may create one or more subcommittees, which consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

ARTICLE IV
OFFICERS

Section 4.01. Designation, Election and Term of Office. The Corporation shall have a Chairperson of the Board of Directors, a Chief Executive Officer, a Secretary and a Treasurer and such other officers as the Board of Directors deems appropriate, including to the extent deemed appropriate by the Board of Directors, a President, a Chief Financial Officer, a Chief Legal Officer and one more Executive Vice Presidents, Senior Vice Presidents and Vice Presidents. These officers shall be elected annually by the Board of Directors at the Organizational Meeting immediately following the annual meeting of stockholders and each such officer shall hold office until a successor is elected or until his or her earlier resignation, death or removal. Any vacancy in any of the above offices may be filled for an unexpired portion of the term by the Board of Directors at any meeting thereof. The Chief Executive Officer may, by a writing filed with the Secretary, designate titles for employees and agents, as, from time to time, may appear necessary or advisable in the conduct of the affairs of the Corporation and, in the same manner, terminate or change such titles.

Section 4.02. Chairperson of the Board of Directors. The Board of Directors shall designate the Chairperson of the Board of Directors from among its members. The Chairperson of the Board of Directors shall preside at all meetings of the Board of Directors, and shall perform such other duties as shall be delegated to him or her by the Board of Directors.

Section 4.03. Chief Executive Officer. Subject to the direction of the Board of Directors, the Chief Executive Officer shall be responsible for the general supervision, direction and control of the business and affairs of the Corporation

Section 4.04. President. The President shall perform such duties and have such responsibilities as may from time to time be delegated or assigned to him or her by the Board of Directors or the Chief Executive Officer.

Section 4.05. Chief Financial Officer. The Chief Financial Officer of the Corporation shall be responsible to the Chief Executive Officer for the management and supervision of all financial matters and to provide for the financial growth and stability of the Corporation. The Chief Financial Officer shall also perform such additional duties as may be assigned to the Chief Financial Officer from time to time by the Board of Directors or the Chief Executive Officer.

Section 4.06. Chief Legal Officer. The Chief Legal Officer of the Corporation shall be the General Counsel who shall be responsible to the Chief Executive Officer for the management and supervision of all legal matters. The Chief Legal Officer shall also perform such additional duties as may be assigned to the Chief Legal Officer from time to time by the Board of Directors or the Chief Executive Officer.

Section 4.07. Secretary. The Secretary shall keep the minutes of the meetings of the stockholders, the Board of Directors and all committee meetings. The Secretary shall be the custodian of the corporate seal and shall affix it to all documents that the Secretary is authorized by law or the Board of Directors to sign and seal. The Secretary also shall perform such other duties as may be assigned to the Secretary from time to time by the Board of Directors or the Chief Executive Officer.

Section 4.08. Treasurer. The Treasurer shall be accountable to the Chief Financial Officer, and shall perform such duties as may be assigned to the Treasurer from time to time by the Board of Directors, the Chief Executive Officer, the Chief Financial Officer or the Senior Vice President, Finance.

Section 4.09. Executive Vice Presidents, Senior Vice Presidents and Vice Presidents. Executive vice presidents, senior vice presidents, vice presidents and other officers of the Corporation that are elected by the Board of Directors shall perform such duties as may be assigned to them from time to time by the Chief Executive Officer.

Section 4.10. Appointed Officers. The Board of Directors or the Chief Executive Officer may appoint one or more Corporate Staff Vice Presidents, officers of groups or divisions or assistant secretaries, assistant treasurers and such other assistant officers as the business of the Corporation may require, each of whom shall hold office for such period, have such authority and perform such duties as may be specified from time to time by the Board of Directors or the Chief Executive Officer.

Section 4.11. Absence or Disability of an Officer. In the case of the absence or disability of an officer of the Corporation the Board of Directors, or any officer designated by it, or the Chief Executive Officer may, for the time of the absence or disability, delegate such officer's duties and powers to any other officer of the Corporation.

Section 4.12. Officers Holding Two or More Offices. The same person may hold any two or more of the above-mentioned offices except that the Secretary shall not be the same person as the Chief Executive Officer or the President.

Section 4.13. Compensation. The Board of Directors shall have the power to fix the compensation of all officers and employees of the Corporation and to delegate such power to a committee of the Board of Directors.

Section 4.14. Resignations. Any officer may resign at any time by submitting a resignation to the Corporation in writing or by electronic transmission. Any such resignation shall take effect at the time of receipt by the Corporation unless such resignation is effective at a future time or upon the happening of a future event or events, in which case it shall be effective at such time or upon the happening of such event or events. Unless the resignation provides otherwise, the acceptance of a resignation shall not be required to make it effective.

Section 4.15. Removal. The Board of Directors may remove any elected officer of the Corporation, with or without cause. Any appointed officer of the Corporation may be removed, with or without cause, by the Chief Executive Officer or the Board of Directors.

Section 4.16. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer, employee or agent, notwithstanding any provisions hereof.

ARTICLE V
INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS

Section 5.01. Right to Indemnification. Each person who was or is made a party, or is threatened to be made a party, to any actual or threatened action, suit, or proceeding, whether civil, criminal, administrative, or investigative (hereinafter a "proceeding"), by reason of the fact that (i) he or she is or was a director, officer, employee, or agent of the Corporation (hereinafter an "indemnitee") or (ii) he or she is or was serving at the request of the Board of Directors or an executive officer (as such term is defined in Section 16 of the Exchange Act) of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended, or by other applicable law as then in effect, against all expense, liability, and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) actually and reasonably incurred or suffered by such indemnitee in connection therewith. The right to indemnification provided by this Article shall apply whether or not the basis of such proceeding is alleged action in an official capacity as such director, officer, employee or agent or in any other capacity while serving as such director, officer, employee or agent. Notwithstanding anything in this Section 5.01 to the contrary, except

as provided in Section 5.03 with respect to proceedings to enforce rights to indemnification, the Corporation shall indemnify any such indemnitee in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Corporation.

Section 5.02. Advancement of Expenses. The right to indemnification conferred in Section 5.01, shall include the right to have the expenses incurred in defending or preparing for any such proceeding in advance of its final disposition (hereinafter an "advancement of expenses") paid by the Corporation; provided, however, that if the DGCL requires, an advancement of expenses incurred by an indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is to be rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Corporation of an undertaking containing such terms and conditions, including the requirement of security, as the Board of Directors deems appropriate (hereinafter an "undertaking"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Article or otherwise. The Corporation shall not be obligated to advance fees and expenses to a director, officer, employee or agent in connection with a proceeding instituted by the Corporation against such person.

Section 5.03. Right of Indemnitee to Bring Suit. If a claim under Section 5.01 or 5.02 is not paid in full by the Corporation within 60 calendar days after a written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses under Section 5.02, in which case the applicable period shall be 30 calendar days, the indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. If the indemnitee is successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall be entitled to be paid also the expense of prosecuting or defending such suit. In (i) any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the DGCL. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel or its stockholders) that the indemnitee has not met such applicable standard of conduct, shall create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit. In any suit brought by the indemnitee to

enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article V or otherwise shall be on the Corporation.

Section 5.04. Nonexclusivity of Rights. (a) The rights to indemnification and to the advancement of expenses conferred in this Article shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provisions of the Certificate, Bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. (b) The Corporation may maintain insurance, at its expense, to protect itself and any past or present director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL. The Corporation may enter into contracts with any indemnitee in furtherance of the provisions of this Article and may create a trust fund, grant a security interest or use other means (including, without limitation, a letter of credit) to ensure the payment of such amounts as may be necessary to effect indemnification as provided in this Article. (c) The Corporation may without reference to Sections 5.01 through 5.04 (a) and (b) hereof, pay the expenses, including attorneys' fees, incurred by any director, officer, employee or agent of the Corporation who is subpoenaed, interviewed or deposed as a witness or otherwise incurs expenses in connection with any civil, arbitration, criminal or administrative proceeding or governmental or internal investigation to which the Corporation is a party, target, or potentially a party or target, or of any such individual who appears as a witness at any trial, proceeding or hearing to which the Corporation is a party, if the Corporation determines that such payments will benefit the Corporation and if, at the time such expenses are incurred by such individual and paid by the Corporation, such individual is not a party, and is not threatened to be made a party, to such proceeding or investigation.

Section 5.05. Indemnification of Employees and Agents of the Corporation. The Corporation may grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent permitted by law. The Corporation may, by action of its Board of Directors, authorize one or more officers to grant rights for indemnification or the advancement of expenses to employees and agents of the Corporation on such terms and conditions as such officers deem appropriate.

Section 5.06. Nature of Rights. The rights conferred upon indemnitees in this Article V shall be contract rights and such rights shall continue as to an indemnitee who has ceased to be a director, officer or trustee and shall inure to the benefit of the indemnitee's heirs, executors and administrators. Any amendment, alteration or repeal of this Article V that adversely affects any right of an indemnitee or its successors shall be prospective only and shall not limit or eliminate any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment or repeal.

ARTICLE VI
STOCK

Section 6.01. Shares of Stock. The Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of the capital stock of the Corporation shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation (or, if such certificate has been lost, stolen or destroyed, the procedures required by the Corporation in Section 6.07 shall have been followed). To the extent shares of capital stock are represented by certificates, such certificates shall be signed by the Chairperson of the Board of Directors, the President or a vice president, together with the Secretary or assistant secretary, or the Treasurer or assistant treasurer. Any or all of the signatures on any certificate may be facsimile. A stockholder that holds a certificate representing shares of any class or series of the capital stock of the Corporation for which the Board of Directors has authorized uncertificated shares may request that the Corporation cancel such certificate and issue such shares in an uncertificated form, provided that the Corporation shall not be obligated to issue any uncertificated shares of capital stock to such stockholder until such certificate representing such shares of capital stock shall have been surrendered to the Corporation (or, if such certificate has been lost, stolen or destroyed, the procedures required by the Corporation in Section 6.07 shall have been followed).

With respect to certificated shares of capital stock, the Secretary or an assistant secretary of the Corporation or the transfer agent thereof shall mark every certificate exchanged, returned or surrendered to the Corporation with "Cancelled" and the date of cancellation.

In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The Corporation shall not have power to issue a certificate in bearer form.

If the Corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional, or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock, provided that, except as otherwise provided in Section 6.04 or Section 202 of the DGCL, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock, a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional, or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. In the case of uncertificated shares, within a reasonable time after the issuance or transfer of uncertificated stock, the Corporation shall send to

the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to this section, Sections 6.02(b), 6.04 and 6.05 of these Bylaws and Sections 156, 202(a) and 218(a) of the DGCL, or with respect to this section and Section 151 of the DGCL a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Section 6.02. Issuance of Stock; Lawful Consideration.

(a) Shares of stock may be issued for such consideration, having a value not less than the par value thereof, as determined from time to time by the Board of Directors. Treasury shares may be disposed of by the Corporation for such consideration as may be determined from time to time by the Board of Directors. The consideration for subscriptions to, or the purchase of, the capital stock to be issued by the Corporation shall be paid in such form and in such manner as the Board of Directors shall determine. The Board of Directors may authorize capital stock to be issued for consideration consisting of cash, any tangible or intangible property or any benefit to the Corporation, or any combination thereof. In the absence of actual fraud in the transaction, the judgment of the Board of Directors as to the value of such consideration shall be conclusive. The capital stock so issued shall be deemed to be fully paid and nonassessable stock upon receipt by the Corporation of such consideration; provided, however, nothing contained herein shall prevent the Board of Directors from issuing partly paid shares in accordance with Section 6.02(b) and Section 156 of the DGCL.

(b) The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, or upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

Section 6.03. Transfer Agents and Registrars. The Corporation may have one or more transfer agents and one or more registrars of its stock whose respective duties the Board of Directors or the Secretary may, from time to time, define. No certificate of stock shall be valid until countersigned by a transfer agent, if the Corporation has a transfer agent, or until registered by a registrar, if the Corporation has a registrar. The duties of transfer agent and registrar may be combined.

Section 6.04. Restrictions on Transfer and Ownership of Securities. A written restriction or restrictions on the transfer or registration of transfer of a security of the Corporation, or on the amount of the Corporation's securities that may be owned by any person or group of persons, if permitted by Section 202 of the DGCL and noted conspicuously on the certificate or certificates representing the security or securities so restricted or, in the case of uncertificated shares, contained in the notice or notices sent

pursuant to Section 6.02 of these Bylaws and Section 151(f) of the DGCL, may be enforced against the holder of the restricted security or securities or any successor or transferee of the holder including an executor, administrator, trustee, guardian or other fiduciary entrusted with like responsibility for the person or estate of the holder. Unless noted conspicuously on the certificate or certificates representing the security or securities so restricted or, in the case of uncertificated shares, contained in the notice or notices sent pursuant to Section 6.02 of these Bylaws and Sections 151(f) of the DGCL, a restriction, even though permitted by Section 202 of the DGCL, is ineffective except against a person with actual knowledge of the restriction.

Section 6.05. Voting Trusts and Voting Agreements. One stockholder or two or more stockholders may by agreement in writing deposit capital stock of the Corporation of an original issue with or transfer capital stock of the Corporation to any person or persons, or entity or entities authorized to act as trustee, for the purpose of vesting in such person or persons, entity or entities, who may be designated voting trustee, or voting trustees, the right to vote thereon for any period of time determined by such agreement, upon the terms and conditions stated in such agreement. The agreement may contain any other lawful provisions not inconsistent with such purpose. After the filing of a copy of the agreement in the registered office of the Corporation in the State of Delaware, which copy shall be open to the inspection of any stockholder of the Corporation or any beneficiary of the trust under the agreement daily during business hours, certificates of stock or uncertificated stock shall be issued to the voting trustee or trustees to represent any stock of an original issue so deposited with such voting trustee or trustees, and any certificates of stock or uncertificated stock so transferred to the voting trustee or trustees shall be surrendered and cancelled and new certificates or uncertificated stock shall be issued therefor to the voting trustee or trustees. In the certificate so issued, if any, it shall be stated that it is issued pursuant to such agreement, and that fact shall also be stated in the stock ledger of the Corporation. The voting trustee or trustees may vote the stock so issued or transferred during the period specified in the agreement. Stock standing in the name of the voting trustee or trustees may be voted either in person or by proxy, and in voting the stock, the voting trustee or trustees shall incur no responsibility as stockholder, trustee or otherwise, except for their own individual malfeasance. In any case where two or more persons or entities are designated as voting trustees, and the right and method of voting any stock standing in their names at any meeting of the Corporation are not fixed by the agreement appointing the trustees, the right to vote the stock and the manner of voting it at the meeting shall be determined by a majority of the trustees, or if they be equally divided as to the right and manner of voting the stock in any particular case, the vote of the stock in such case shall be divided equally among the trustees.

Section 6.06. Transfer of Shares. Registration of transfer of shares of stock of the Corporation may be effected on the books of the Corporation in the following manner:

(a) ***Certificated Shares.*** In the case of certificated shares, upon authorization by the registered holder of share certificates representing such shares of stock, or by his attorney authorized by a power of attorney duly executed and filed with the Secretary or

with a designated transfer agent or transfer clerk, and upon surrender to the Corporation or any transfer agent of the corporation of the certificate being transferred, which certificate shall be properly and fully endorsed or accompanied by a duly executed stock transfer power, and otherwise in proper form for transfer, and the payment of all transfer taxes thereon. Whenever a certificate is endorsed by or accompanied by a stock power executed by someone other than the person or persons named in the certificate, evidence of authority to transfer shall also be submitted with the certificate. Notwithstanding the foregoing, such surrender, proper form for transfer or payment of taxes shall not be required in any case in which the officers of the Corporation determine to waive such requirement.

(b) ***Uncertificated Shares.*** In the case of uncertificated shares of stock, upon receipt of proper and duly executed transfer instructions from the registered holder of such shares, or by his attorney authorized by a power of attorney duly executed and filed with the Secretary or with a designated transfer agent or transfer clerk, the payment of all transfer taxes thereon, and compliance with appropriate procedures for transferring shares in uncertificated form. Whenever such transfer instructions are executed by someone other than the person or persons named in the books of the Corporation as the holder thereof, evidence of authority to transfer shall also be submitted with such transfer instructions. Notwithstanding the foregoing, such payment of taxes or compliance shall not be required in any case in which the officers of the Corporation determine to waive such requirement.

No transfer of shares of capital stock shall be made on the books of this Corporation if such transfer is in violation of a lawful restriction noted conspicuously on the certificate. No transfer of shares of capital stock shall be valid as against the Corporation for any purpose until it shall have been entered in the stock records of the Corporation by an entry showing from and to whom transferred.

Section 6.07. Lost, Stolen or Destroyed Share Certificates. The Corporation may issue a new certificate of stock or uncertificated shares in place of any certificate previously issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares; but the Corporation, in its discretion, may refuse to issue a new certificate of stock unless the Corporation is ordered to do so by a court of competent jurisdiction.

Section 6.08. Stock Ledgers. Original or duplicate stock ledgers, containing the names and addresses of the stockholders of the Corporation and the number of shares of each class of stock held by them, shall be kept at the principal executive office of the Corporation or at the office of its transfer agent or registrar.

Section 6.09. Record Dates. In order that the Corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the Board of Directors may, except as otherwise required by law, fix a record

date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors and which record date shall not be more than 60 nor less than 10 days before the date of such meeting. If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of and to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held, and, for determining stockholders entitled to receive payment of any dividend or other distribution or allotment of rights or to exercise any rights of change, conversion or exchange of stock or for any other purpose, the record date shall be at the close of business on the day on which the Board of Directors adopts a resolution relating thereto. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for determining the stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determining the stockholders entitled to vote at such adjourned meeting in accordance with the foregoing provisions of this Section 6.09 at the adjourned meeting.

In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall not be more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

ARTICLE VII
SUNDRY PROVISIONS

Section 7.01. Fiscal Year. The fiscal year of the Corporation shall end on the 31st day of December of each year.

Section 7.02. Seal. The seal of the Corporation shall bear the name of the Corporation and the words “Delaware” and “Incorporated January 16, 2001.”

Section 7.03. Voting of Stock in Other Corporations. Any shares of stock in other corporations or associations, which may from time to time be held by the Corporation, may be represented and voted in person or by proxy, at any of the stockholders’ meetings thereof by the Chief Executive Officer or the designee of the Chief Executive Officer. The Board of Directors, however, may by resolution appoint

some other person or persons to vote such shares, in which case such person or persons shall be entitled to vote such shares.

Section 7.04. Amendments. These Bylaws may be adopted, repealed, rescinded, altered or amended only as provided in Articles Fifth and Sixth of the Certificate.

Section 7.05. Form of Records. Any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account, and minute books, may be kept on, or by means of, or be in the form of, any information storage device, or method provided that the records so kept can be converted into clearly legible paper form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect such records under the DGCL.

As restated, March 30, 2011.

Exhibit 4.1

FIRST SUPPLEMENTAL INDENTURE

THIS FIRST SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "First Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (formerly known as Northrop Grumman Corporation), a Delaware corporation (the "Company"), The Bank of New York Mellon, a New York state chartered bank, as successor trustee to JPMorgan Chase Bank (the "Trustee"), Titan II Inc. (formerly known as Northrop Grumman Corporation), a Delaware corporation (" NGC"), and Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of October 15, 1994, between the Company and the Trustee (as supplemented and/or amended, the " Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the " Securities");

WHEREAS, NGC has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to guarantees dated as of April 3, 2001 (collectively, the "Guarantees");

WHEREAS, NGC intends to transfer its properties and assets substantially as an entirety to Holdings LP (the " Transfer") as contemplated by Section 10 of the Guarantees;

WHEREAS, NGC and Holdings LP desire that the Guarantees continue following the Transfer; and

WHEREAS, the Guarantees may be amended in accordance with Article Nine of the Indenture.

NOW, THEREFORE, the Company, NGC and Holdings LP covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by Holdings LP . In accordance with Section 10 of the Guarantees and effective upon consummation of the Transfer, Holdings LP hereby assumes NGC's obligations under the Guarantees and effective upon consummation of the Transfer Holdings LP shall succeed to, and be substituted for, NGC under the Indenture and the Guarantees and NGC shall be relieved of all obligations and covenants under the Indenture and the Guarantees.

2. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantees:

(a) A Board Resolution of the Company authorizing the execution of this First Supplemental Indenture, as required by Section 901 of the Indenture.

(b) An Officers' Certificate of the Company as required by Section 102 of the Indenture.

(c) An Officers' Certificate of NGC as required by Section 10 of the Guarantees.

(d) An Opinion of Counsel as required by Section 10 of the Guarantees and Sections 102 and 903 of the Indenture.

3. Incorporation by Reference. This First Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

4. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

5. Successors and Assigns. All covenants and agreements in this First Supplemental Indenture by the Company, NGC and Holdings LP shall bind their successors and assigns, whether so expressed or not.

6. Separability Clause. In case any provision in this First Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

7. Governing Law. This First Supplemental Indenture shall be governed by and construed in accordance with the law of the State of New York, without regard to principles of conflicts of laws.

8. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

9. Counterparts. This First Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

10. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this First Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, NGC and Holdings LP and not of the Trustee.

11. Benefits. Nothing in this First Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this First Supplemental Indenture.

12. Notices. For purposes of Section 7 of the Guarantees, the address of Holdings LP shall be as follows:

Titan Holdings II, L.P.
1840 Century Park East
Los Angeles, CA 90067
Attention: Mark Rabinowitz, President

13. Notice to Trustee. Holdings LP shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this First Supplemental Indenture to be duly executed as of March 30, 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN II INC.

/s/ C. Michael Petters
By: C. Michael Petters
Its: President

Attest:

/s/ D. R. Wyatt
By: D. R. Wyatt
Its: Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.2

SECOND SUPPLEMENTAL INDENTURE

THIS SECOND SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "Second Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (formerly known as Northrop Grumman Corporation), a Delaware corporation (the "Company"), The Bank of New York Mellon, a New York state chartered bank, as successor trustee to JPMorgan Chase Bank (the "Trustee"), Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"), and Northrop Grumman Corporation (formerly known as New P, Inc.), a Delaware corporation ("New NGC"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of October 15, 1994, between the Company and the Trustee (as supplemented and/or amended, the "Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the "Securities");

WHEREAS, Holdings LP has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to guarantees dated as of April 3, 2001 (collectively, the "Guarantees");

WHEREAS, Holdings LP intends to transfer its properties and assets substantially as an entirety to New NGC (the "Transfer") as contemplated by Section 10 of the Guarantees;

WHEREAS, Holdings LP and New NGC desire that the Guarantees continue following the Transfer; and

WHEREAS, the Guarantees may be amended in accordance with Article Nine of the Indenture.

NOW, THEREFORE, the Company, Holdings LP and New NGC covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by New NGC. In accordance with Section 10 of the Guarantees and effective upon consummation of the Transfer, New NGC hereby assumes Holdings LP's obligations under the Guarantees and effective upon consummation of the Transfer New NGC shall succeed to, and be substituted for, Holdings LP under the Indenture and the Guarantees and Holdings LP shall be relieved of all obligations and covenants under the Indenture and the Guarantees.

2. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantees:

(a) A Board Resolution of the Company authorizing the execution of this Second Supplemental Indenture, as required by Section 901 of the Indenture.

(b) An Officers' Certificate of the Company as required by Section 102 of the Indenture.

(c) An Officers' Certificate of Holdings LP as required by Section 10 of the Guarantees.

(d) An Opinion of Counsel as required by Section 10 of the Guarantees and Sections 102 and 903 of the Indenture.

3. Incorporation by Reference. This Second Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

4. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

5. Successors and Assigns. All covenants and agreements in this Second Supplemental Indenture by the Company, Holdings LP and New NGC shall bind their successors and assigns, whether so expressed or not.

6. Separability Clause. In case any provision in this Second Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

7. Governing Law. This Second Supplemental Indenture shall be governed by and construed in accordance with the law of the State of New York, without regard to principles of conflicts of laws.

8. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

9. Counterparts. This Second Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

10. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Second Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, Holdings LP and New NGC and not of the Trustee.

11. Benefits. Nothing in this Second Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Second Supplemental Indenture.

12. Notices. For purposes of Section 7 of the Guarantees, the address of New NGC shall be as follows:

Northrop Grumman Corporation
1840 Century Park East
Los Angeles, CA 90067
Attention: Mark Rabinowitz, Corporate Vice President and Treasurer

13. Notice to Trustee. New NGC shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Second Supplemental Indenture to be duly executed as of March 30, 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

NORTHROP GRUMMAN CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: Corporate Vice President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.3

THIRD SUPPLEMENTAL INDENTURE

THIS THIRD SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "Third Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), a Delaware corporation (the "Company"), The Bank of New York Mellon (formerly known as The Bank of New York), a New York state chartered bank, as trustee (the "Trustee"), Titan II Inc. (formerly known as Northrop Grumman Corporation), a Delaware corporation (" NGC"), and Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of April 13, 1998, between the Company and the Trustee (as supplemented and/or amended to date, the " Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the " Securities");

WHEREAS, NGC has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to a guarantee dated as of April 3, 2001 (the "Guarantee");

WHEREAS, NGC intends to transfer all or substantially all its properties and assets to Holdings LP (the " Transfer") as contemplated by Section 10 of the Guarantee;

WHEREAS, NGC and Holdings LP desire that the Guarantee continue following the Transfer; and

WHEREAS, the Guarantee may be amended in accordance with Article 9 of the Indenture.

NOW, THEREFORE, the Company, NGC and Holdings LP covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by Holdings LP . In accordance with Section 10 of the Guarantee and effective upon consummation of the Transfer, Holdings LP hereby assumes NGC's obligations under the Guarantee and effective upon consummation of the Transfer Holdings LP shall succeed to, and be substituted for, NGC under the Indenture and the Guarantee and NGC shall be relieved of all obligations and covenants under the Indenture and the Guarantee.

2. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantee:

(a) An Officers' Certificate of the Company as required by Sections 9.6 and 12.4 of the Indenture.

(b) An Officers' Certificate of NGC as required by Section 10 of the Guarantee.

(c) An Opinion of Counsel as required by Section 10 of the Guarantee and Sections 9.6 and 12.4 of the Indenture.

3. Incorporation by Reference. This Third Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

4. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

5. Successors and Assigns. All covenants and agreements in this Third Supplemental Indenture by the Company, NGC and Holdings LP shall bind their successors and assigns, whether so expressed or not.

6. Separability Clause. In case any provision in this Third Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

7. Governing Law. This Third Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York, as applied to contracts made and performed within the State of New York, without regard to principles of conflicts of law.

8. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

9. Counterparts. This Third Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

10. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Third Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, NGC and Holdings LP and not of the Trustee.

11. Benefits. Nothing in this Third Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Third Supplemental Indenture.

12. Notices. For purposes of Section 7 of the Guarantee, the address of Holdings LP shall be as follows:

Titan Holdings II, L.P.
1840 Century Park East

Los Angeles, CA 90067
Attention: Mark Rabinowitz, President

13. Notice to Trustee. Holdings LP shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Third Supplemental Indenture to be duly executed as of March 30, 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN II INC.

/s/ C. Michael Petters
By: C. Michael Petters
Its: President

Attest:

/s/ D. R. Wyatt
By: D. R. Wyatt
Its: Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinwitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.4

FOURTH SUPPLEMENTAL INDENTURE

THIS FOURTH SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "Fourth Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), a Delaware corporation (the "Company"), The Bank of New York Mellon (formerly known as The Bank of New York), a New York state chartered bank, as trustee (the "Trustee"), Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"), and Northrop Grumman Corporation (formerly known as New P, Inc.), a Delaware corporation ("New NGC"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of April 13, 1998, between the Company and the Trustee (as supplemented and/or amended to date, the " Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the " Securities");

WHEREAS, Holdings LP has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to a guarantee dated as of April 3, 2001 (the "Guarantee");

WHEREAS, Holdings LP intends to transfer all or substantially all its properties and assets to New NGC (the " Transfer") as contemplated by Section 10 of the Guarantee;

WHEREAS, Holdings LP and New NGC desire that the Guarantee continue following the Transfer; and

WHEREAS, the Guarantee may be amended in accordance with Article 9 of the Indenture.

NOW, THEREFORE, the Company, Holdings LP and New NGC covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by New NGC . In accordance with Section 10 of the Guarantee and effective upon consummation of the Transfer, New NGC hereby assumes Holdings LP's obligations under the Guarantee and effective upon consummation of the Transfer New NGC shall succeed to, and be substituted for, Holdings LP under the Indenture and the Guarantee and Holdings LP shall be relieved of all obligations and covenants under the Indenture and the Guarantee.

2. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantee:

(a) An Officers' Certificate of the Company as required by Sections 9.6 and 12.4 of the Indenture.

(b) An Officers' Certificate of Holdings LP as required by Section 10 of the Guarantee.

(c) An Opinion of Counsel as required by Section 10 of the Guarantee and Sections 9.6 and 12.4 of the Indenture.

3. Incorporation by Reference. This Fourth Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

4. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

5. Successors and Assigns. All covenants and agreements in this Fourth Supplemental Indenture by the Company, Holdings LP and New NGC shall bind their successors and assigns, whether so expressed or not.

6. Separability Clause. In case any provision in this Fourth Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

7. Governing Law. This Fourth Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York, as applied to contracts made and performed within the State of New York, without regard to principles of conflicts of law.

8. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

9. Counterparts. This Fourth Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

10. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Fourth Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, Holdings LP and New NGC and not of the Trustee.

11. Benefits. Nothing in this Fourth Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Fourth Supplemental Indenture.

12. Notices. For purposes of Section 7 of the Guarantee, the address of New NGC shall be as follows:

Northrop Grumman Corporation
1840 Century Park East

Los Angeles, CA 90067
Attention: Mark Rabinowitz, Corporate Vice President and Treasurer

13. Notice to Trustee. New NGC shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Fourth Supplemental Indenture to be duly executed as of March 30 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

NORTHROP GRUMMAN CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: Corporate Vice President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.5

THIRD SUPPLEMENTAL INDENTURE

THIS THIRD SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "Third Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), a Delaware corporation (the "Company"), The Bank of New York Mellon (formerly known as The Bank of New York), a New York state chartered bank, as trustee (the "Trustee"), Titan II Inc. (formerly known as Northrop Grumman Corporation), a Delaware corporation (" NGC"), and Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Senior Indenture, dated as of December 15, 1991, between the Company and the Trustee (as supplemented and/or amended to date, the " Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the " Securities");

WHEREAS, NGC has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to a guarantee dated as of April 3, 2001 (the "Guarantee");

WHEREAS, NGC intends to transfer all or substantially all its properties and assets to Holdings LP (the " Transfer") as contemplated by Section 10 of the Guarantee;

WHEREAS, NGC and Holdings LP desire that the Guarantee continue following the Transfer; and

WHEREAS, the Guarantee may be amended in accordance with Article Nine of the Indenture.

NOW, THEREFORE, the Company, NGC and Holdings LP covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by Holdings LP . In accordance with Section 10 of the Guarantee and effective upon consummation of the Transfer, Holdings LP hereby assumes NGC's obligations under the Guarantee and effective upon consummation of the Transfer Holdings LP shall succeed to, and be substituted for, NGC under the Indenture and the Guarantee and NGC shall be discharged and released from all obligations and covenants under the Indenture and the Guarantee.

2. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantee:

(a) A Board Resolution of the Company authorizing the execution of this Third Supplemental Indenture, as required by Section 901 of the Indenture.

(b) An Officers' Certificate of the Company as required by Section 102 of the Indenture.

(c) An Officers' Certificate of NGC as required by Section 10 of the Guarantee.

(d) An Opinion of Counsel as required by Section 10 of the Guarantee and Sections 102 and 903 of the Indenture.

3. Incorporation by Reference. This Third Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

4. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

5. Successors and Assigns. All covenants and agreements in this Third Supplemental Indenture by the Company, NGC and Holdings LP shall bind their successors and assigns, whether so expressed or not.

6. Separability Clause. In case any provision in this Third Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

7. Governing Law. This Third Supplemental Indenture shall be construed in accordance with and governed by the laws of the State of New York.

8. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

9. Counterparts. This Third Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

10. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Third Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, NGC and Holdings LP and not of the Trustee.

11. Benefits. Nothing in this Third Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Third Supplemental Indenture.

12. Notices. For purposes of Section 7 of the Guarantee, the address of Holdings LP shall be as follows:

Titan Holdings II, L.P.
1840 Century Park East
Los Angeles, CA 90067
Attention: Mark Rabinowitz, President

13. Notice to Trustee. Holdings LP shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Third Supplemental Indenture to be duly executed as of March 30, 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN II INC.

/s/ C. Michael Petters
By: C. Michael Petters
Its: President

Attest:

/s/ D. R. Wyatt
By: D. R. Wyatt
Its: Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.6

FOURTH SUPPLEMENTAL INDENTURE

THIS FOURTH SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "Fourth Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (successor-in-interest to Litton Industries, Inc.), a Delaware corporation (the "Company"), The Bank of New York Mellon (formerly known as The Bank of New York), a New York state chartered bank, as trustee (the "Trustee"), Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"), and Northrop Grumman Corporation (formerly known as New P, Inc.), a Delaware corporation ("New NGC"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Senior Indenture, dated as of December 15, 1991, between the Company and the Trustee (as supplemented and/or amended to date, the " Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the " Securities");

WHEREAS, Holdings LP has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to a guarantee dated as of April 3, 2001 (the "Guarantee");

WHEREAS, Holdings LP intends to transfer all or substantially all its properties and assets to New NGC (the " Transfer") as contemplated by Section 10 of the Guarantee;

WHEREAS, Holdings LP and New NGC desire that the Guarantee continue following the Transfer; and

WHEREAS, the Guarantee may be amended in accordance with Article Nine of the Indenture.

NOW, THEREFORE, the Company, Holdings LP and New NGC covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by New NGC . In accordance with Section 10 of the Guarantee and effective upon consummation of the Transfer, New NGC hereby assumes Holdings LP's obligations under the Guarantee and effective upon consummation of the Transfer New NGC shall succeed to, and be substituted for, Holdings LP under the Indenture and the Guarantee and Holdings LP shall be discharged and released from all obligations and covenants under the Indenture and the Guarantee.

2. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantee:

(a) A Board Resolution of the Company authorizing the execution of this Fourth Supplemental Indenture, as required by Section 901 of the Indenture.

(b) An Officers' Certificate of the Company as required by Section 102 of the Indenture.

(c) An Officers' Certificate of Holdings LP as required by Section 10 of the Guarantee.

(d) An Opinion of Counsel as required by Section 10 of the Guarantee and Sections 102 and 903 of the Indenture.

3. Incorporation by Reference. This Fourth Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

4. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

5. Successors and Assigns. All covenants and agreements in this Fourth Supplemental Indenture by the Company, Holdings LP and New NGC shall bind their successors and assigns, whether so expressed or not.

6. Separability Clause. In case any provision in this Fourth Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

7. Governing Law. This Fourth Supplemental Indenture shall be construed in accordance with and governed by the laws of the State of New York.

8. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

9. Counterparts. This Fourth Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

10. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Fourth Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, Holdings LP and New NGC and not of the Trustee.

11. Benefits. Nothing in this Fourth Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Fourth Supplemental Indenture.

12. Notices. For purposes of Section 7 of the Guarantee, the address of New NGC shall be as follows:

Northrop Grumman Corporation
1840 Century Park East
Los Angeles, CA 90067
Attention: Mark Rabinowitz, Corporate Vice President and Treasurer

13. Notice to Trustee. New NGC shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Fourth Supplemental Indenture to be duly executed as of March 30, 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

NORTHROP GRUMMAN CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: Corporate Vice President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

THE BANK OF NEW YORK MELLON, as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.7

TENTH SUPPLEMENTAL INDENTURE

THIS TENTH SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "Tenth Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (successor-in-interest to Northrop Grumman Space & Mission Systems Corp. and TRW, Inc.), a Delaware corporation (the "Company"), The Bank of New York Mellon, a New York state chartered bank, as successor trustee to JPMorgan Chase Bank and to Mellon Bank, N.A. (the "Trustee"), Titan II Inc. (formerly known as Northrop Grumman Corporation), a Delaware corporation ("NGC"), and Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of May 1, 1986, between the Company and the Trustee (as supplemented and/or amended to date, the "Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the "Securities");

WHEREAS, NGC has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to a guarantee dated as of March 27, 2003 (the "Guarantee");

WHEREAS, NGC intends to transfer its properties and assets substantially as an entirety to Holdings LP (the "Transfer") as contemplated by Section 10 of the Guarantee;

WHEREAS, NGC and Holdings LP desire that the Guarantee continue following the Transfer; and

WHEREAS, Section 11.01(c) of the Indenture provides, among other things, that the Trustee and the Company, when authorized by a Board Resolution, may enter into a supplemental indenture without the consent of any Holder, the purpose of which is to make such other provisions in regard to other matters or questions arising under this Indenture as shall not adversely affect the interests of the Holders of the Securities.

NOW, THEREFORE, the Company, NGC and Holdings LP covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Amendment of Guarantee. The first sentence of Section 10 of the Guarantee shall be amended by adding the words "with respect to the Guarantor" after the word "terminate."

2. Assumption of Obligations by Holdings LP. In accordance with Section 10 of the Guarantee and effective upon consummation of the Transfer, Holdings LP hereby assumes NGC's obligations under the Guarantee and effective upon consummation of the Transfer Holdings LP shall succeed to, and be substituted for, NGC under the Indenture and the Guarantee, the Guarantee shall automatically terminate with respect to NGC and NGC shall be relieved of all obligations and covenants under the Indenture and the Guarantee.

3. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantee:

(a) A Board Resolution of the Company authorizing the execution of this Tenth Supplemental Indenture, as required by Section 11.01 of the Indenture.

(b) An Officers' Certificate of the Company as required by Section 15.05 of the Indenture.

(c) An Officers' Certificate of NGC as required by Section 10 of the Guarantee.

(d) An Opinion of Counsel as required by Section 10 of the Guarantee and Sections 11.03 and 15.05 of the Indenture.

4. Incorporation by Reference. This Tenth Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

5. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

6. Successors and Assigns. All covenants and agreements in this Tenth Supplemental Indenture by the Company, NGC and Holdings LP shall bind their successors and assigns, whether so expressed or not.

7. Separability Clause. In case any provision in this Tenth Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

8. Governing Law. This Tenth Supplemental Indenture shall be deemed to be a contract made under the laws of the State of New York, and for all purposes shall be construed in accordance with the laws of said State.

9. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

10. Counterparts. This Tenth Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

11. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Tenth Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, NGC and Holdings LP and not of the Trustee.

12. Benefits. Nothing in this Tenth Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Tenth Supplemental Indenture.

13. Notices. For purposes of Section 7 of the Guarantee, the address of Holdings LP shall be as follows:

Titan Holdings II, L.P.
1840 Century Park East
Los Angeles, CA 90067
Attention: Mark Rabinowitz, President

14. Notice to Trustee. Holdings LP shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Tenth Supplemental Indenture to be duly executed as of March 30, 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN II INC.

/s/ C. Michael Petters
By: C. Michael Petters
Its: President

Attest:

/s/ D. R. Wyatt
By: D. R. Wyatt
Its: Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.8

ELEVENTH SUPPLEMENTAL INDENTURE

THIS ELEVENTH SUPPLEMENTAL INDENTURE dated as of March 30, 2011 (this "Eleventh Supplemental Indenture"), is by and among Northrop Grumman Systems Corporation (successor-in-interest to Northrop Grumman Space & Mission Systems Corp. and TRW Inc.), a Delaware corporation (the "Company"), The Bank of New York Mellon, a New York state chartered bank, as successor trustee to JPMorgan Chase Bank and to Mellon Bank, N.A. (the "Trustee"), Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"), and Northrop Grumman Corporation (formerly known as New P, Inc.), a Delaware corporation ("New NGC"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of May 1, 1986, between the Company and the Trustee (as supplemented and/or amended to date, the "Indenture");

WHEREAS, the Company has issued debt securities pursuant to the terms of the Indenture (the "Securities");

WHEREAS, Holdings LP has guaranteed the obligations of the Company in favor of the Trustee under the Indenture pursuant to a guarantee dated as of March 27, 2003 (the "Guarantee");

WHEREAS, Holdings LP intends to transfer its properties and assets substantially as an entirety to New NGC (the "Transfer") as contemplated by Section 10 of the Guarantee;

WHEREAS, Holdings LP and New NGC desire that the Guarantee continue following the Transfer; and

WHEREAS, Section 11.01(c) of the Indenture provides, among other things, that the Trustee and the Company, when authorized by a Board Resolution, may enter into a supplemental indenture without the consent of any Holder, the purpose of which is to make such other provisions in regard to other matters or questions arising under this Indenture as shall not adversely affect the interests of the Holders of the Securities.

NOW, THEREFORE, the Company, Holdings LP and New NGC covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by New NGC. In accordance with Section 10 of the Guarantee and effective upon consummation of the Transfer, New NGC hereby assumes Holdings LP's obligations under the Guarantee and effective upon consummation of the Transfer New NGC shall succeed to, and be substituted for, Holdings LP under the Indenture and the Guarantee, the Guarantee shall automatically terminate with respect to Holdings LP and Holdings LP shall be relieved of all obligations and covenants under the Indenture and the Guarantee.

2. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture and the Guarantee:

(a) A Board Resolution of the Company authorizing the execution of this Eleventh Supplemental Indenture, as required by Section 11.01 of the Indenture.

(b) An Officers' Certificate of the Company as required by Section 15.05 of the Indenture.

(c) An Officers' Certificate of Holdings LP as required by Section 10 of the Guarantee.

(d) An Opinion of Counsel as required by Section 10 of the Guarantee and Sections 11.03 and 15.05 of the Indenture.

3. Incorporation by Reference. This Eleventh Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

4. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

5. Successors and Assigns. All covenants and agreements in this Eleventh Supplemental Indenture by the Company, Holdings LP and New NGC shall bind their successors and assigns, whether so expressed or not.

6. Separability Clause. In case any provision in this Eleventh Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

7. Governing Law. This Eleventh Supplemental Indenture shall be deemed to be a contract made under the laws of the State of New York, and for all purposes shall be construed in accordance with the laws of said State.

8. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

9. Counterparts. This Eleventh Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

10. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Eleventh Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company, Holdings LP and New NGC and not of the Trustee.

11. Benefits. Nothing in this Eleventh Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Eleventh Supplemental Indenture.

12. Notices. For purposes of Section 7 of the Guarantee, the address of New NGC shall be as follows:

Northrop Grumman Corporation
1840 Century Park East
Los Angeles, CA 90067
Attention: Mark Rabinowitz, Corporate Vice President and Treasurer

13. Notice to Trustee. New NGC shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Eleventh Supplemental Indenture to be duly executed as of March 30, 2011.

NORTHROP GRUMMAN SYSTEMS CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

NORTHROP GRUMMAN CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: Corporate Vice President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.9

THIRD SUPPLEMENTAL INDENTURE

THIS THIRD SUPPLEMENTAL INDENTURE, dated as of March 30, 2011 (this "Third Supplemental Indenture"), is by and among Titan II Inc. (formerly known as Northrop Grumman Corporation), a Delaware corporation (the "Company"), The Bank of New York Mellon, a New York state chartered bank, as successor trustee to JPMorgan Chase Bank (the "Trustee"), and Titan Holdings II, L.P., a Delaware limited partnership ("Holdings LP"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of November 21, 2001, between the Company and the Trustee (as supplemented and/or amended to date, the "Indenture");

WHEREAS, the Company has issued its 3.70% Senior Notes due 2014, its 5.05% Senior Notes due 2019, its 1.850% Senior Notes due 2015, its 3.500% Senior Notes due 2021, and its 5.050% Senior Notes due 2040 pursuant to the terms of the Indenture (the "Securities");

WHEREAS, the Company intends to transfer its properties and assets substantially as an entirety to Holdings LP (the "Transfer") as contemplated by Section 801 of the Indenture; and

WHEREAS, Section 901(1) of the Indenture provides that the Company, when authorized by a Board Resolution, may enter into an indenture supplemental to the Indenture to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company in the Indenture and in the Securities.

NOW, THEREFORE, the Company and Holdings LP covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by Holdings LP. In accordance with Sections 801 and 802 of the Indenture and effective upon consummation of the Transfer, Holdings LP hereby expressly assumes the due and punctual payment of the principal of and any premium and interest on all the Securities and the performance or observance of every covenant of the Indenture on the part of the Company to be performed or observed and effective upon consummation of the Transfer Holdings LP shall succeed to, and be substituted for, and may exercise every right and power of, the Company under the Indenture with the same effect as if Holdings LP had been named as the Company therein, and effective upon the consummation of the Transfer the Company shall be relieved of all obligations and covenants under the Indenture and the Securities.

2. Amendment of Indenture. Section 105(2) of the Indenture shall be amended and restated in its entirety as follows:

"(2) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to the Company addressed to it at Titan Holdings II, L.P.,

1840 Century Park East, Los Angeles, CA 90067, Attention: Mark Rabinowitz, President, or at any other address previously furnished in writing to the Trustee by the Company."

3. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture:

(a) A Board Resolution of the Company authorizing the execution of this Third Supplemental Indenture, as required by Section 901 of the Indenture.

(b) An Officers' Certificate of the Company as required by Sections 102 and 801 of the Indenture.

(c) An Opinion of Counsel as required by Sections 102, 801 and 903 of the Indenture.

4. Incorporation by Reference. This Third Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

5. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

6. Successors and Assigns. All covenants and agreements in this Third Supplemental Indenture by the Company and Holdings LP shall bind their successors and assigns, whether so expressed or not.

7. Separability Clause. In case any provision in this Third Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

8. Governing Law. This Third Supplemental Indenture shall be governed by and construed in accordance with the law of the State of New York, without regard to principles of conflicts of laws.

9. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

10. Counterparts. This Third Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

11. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Third Supplemental Indenture. The recitals and statements herein are deemed to be those of the Company and Holdings LP and not of the Trustee.

12. Benefits. Nothing in this Third Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Third Supplemental Indenture

13. Notice to Trustee. Holdings LP shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Third Supplemental Indenture to be duly executed as of March 30, 2011.

TITAN II INC.

/s/ C. Michael Petters
By: C. Michael Petters
Its: President

Attest:

/s/ D. R. Wyatt
By: D. R. Wyatt
Its: Treasurer

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

Exhibit 4.10

FOURTH SUPPLEMENTAL INDENTURE

THIS FOURTH SUPPLEMENTAL INDENTURE, dated as of March 30, 2011 (this "Fourth Supplemental Indenture"), is by and among Titan Holdings II, L.P., a Delaware limited partnership (the "Company"), The Bank of New York Mellon, a New York state chartered bank, as successor trustee to JPMorgan Chase Bank (the "Trustee"), and Northrop Grumman Corporation (formerly known as New P, Inc.), a Delaware corporation ("New NGC"). Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Indenture (as defined below).

WHEREAS, the Company and the Trustee are parties to that certain Indenture, dated as of November 21, 2001, between the Company and the Trustee (as supplemented and/or amended to date, the "Indenture");

WHEREAS, the Company's 3.70% Senior Notes due 2014, 5.05% Senior Notes due 2019, 1.850% Senior Notes due 2015, 3.500% Senior Notes due 2021, and 5.050% Senior Notes due 2040 are outstanding under the Indenture (the "Securities");

WHEREAS, the Company intends to transfer its properties and assets substantially as an entirety to New NGC (the "Transfer") as contemplated by Section 801 of the Indenture; and

WHEREAS, Section 901(1) of the Indenture provides that the Company, when authorized by a Board Resolution, may enter into an indenture supplemental to the Indenture to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company in the Indenture and in the Securities.

NOW, THEREFORE, the Company and New NGC covenant and agree to and with the Trustee, for the equal and proportionate benefit of all present and future Holders of the Securities, as follows:

1. Assumption of Obligations by New NGC. In accordance with Sections 801 and 802 of the Indenture and effective upon consummation of the Transfer, New NGC hereby expressly assumes the due and punctual payment of the principal of and any premium and interest on all the Securities and the performance or observance of every covenant of the Indenture on the part of the Company to be performed or observed and effective upon consummation of the Transfer New NGC shall succeed to, and be substituted for, and may exercise every right and power of, the Company under the Indenture with the same effect as if New NGC had been named as the Company therein, and effective upon consummation of the Transfer the Company shall be relieved of all obligations and covenants under the Indenture and the Securities.

2. Amendment of Indenture. Section 105(2) of the Indenture shall be amended and restated in its entirety as follows:

"(2) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to the Company addressed to it at Northrop Grumman

Corporation,1840 Century Park East, Los Angeles, CA 90067, Attention: Mark Rabinowitz, Corporate Vice President and Treasurer, or at any other address previously furnished in writing to the Trustee by the Company."

3. Acknowledgement of Trustee. The Trustee hereby acknowledges receipt of the following documents pursuant to the provisions of the Indenture:

(a) A Board Resolution of the Company authorizing the execution of this Fourth Supplemental Indenture, as required by Section 901 of the Indenture.

(b) An Officers' Certificate of the Company as required by Sections 102 and 801 of the Indenture.

(c) An Opinion of Counsel as required by Sections 102, 801 and 903 of the Indenture.

4. Incorporation by Reference. This Fourth Supplemental Indenture shall be construed as supplemental to the Indenture and shall form a part thereof. The Indenture is hereby incorporated by reference herein and is hereby ratified, approved, and confirmed.

5. Effect of Headings. The headings herein are for convenience of reference only, are not to be considered a part hereof, and shall not affect the construction hereof.

6. Successors and Assigns. All covenants and agreements in this Fourth Supplemental Indenture by the Company and New NGC shall bind their successors and assigns, whether so expressed or not.

7. Separability Clause. In case any provision in this Fourth Supplemental Indenture shall be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

8. Governing Law. This Fourth Supplemental Indenture shall be governed by and construed in accordance with the law of the State of New York, without regard to principles of conflicts of laws.

9. Additional Supplemental Indentures. Nothing contained herein shall impair the rights of the parties to enter into one or more additional supplemental indentures in the manner provided in the Indenture.

10. Counterparts. This Fourth Supplemental Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

11. Trustee. In carrying out the Trustee's responsibilities hereunder, the Trustee shall have all of the rights, protections and immunities which it possesses under the Indenture. The Trustee makes no representations as to the validity or sufficiency of this Fourth Supplemental

Indenture. The recitals and statements herein are deemed to be those of the Company and New NGC and not of the Trustee.

12. Benefits. Nothing in this Fourth Supplemental Indenture, express or implied, shall give to any Person, other than the parties hereto and their successors and the Holders, any benefit or any legal or equitable right or claim under this Fourth Supplemental Indenture.

13. Notice to Trustee. New NGC shall give the Trustee prompt notice of the consummation of the Transfer.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Fourth Supplemental Indenture to be duly executed as of March 30, 2011.

TITAN HOLDINGS II, L.P.

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: President

Attest:

/s/ Malcolm S. Swift
By: Malcolm S. Swift
Its: Secretary

NORTHROP GRUMMAN CORPORATION

/s/ Mark Rabinowitz
By: Mark Rabinowitz
Its: Corporate Vice President and Treasurer

Attest:

/s/ Mark Caylor
By: Mark Caylor
Its: Assistant Treasurer

THE BANK OF NEW YORK MELLON,
as Trustee

/s/ Laurence J. O'Brien
By: Laurence J. O'Brien
Its: Vice President

EXHIBIT 12(a)

NORTHROP GRUMMAN CORPORATION
COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES

	Three Months Ended March 31		Year Ended December 31				
	2011	2010[1]	2010	2009	2008	2007	2006
Earnings:							
Earnings (loss) from continuing operations before income taxes	$ 758	$ 609	$2,366	$ 2,073	1,841	$2,158	$1,895
Fixed Charges:							
Interest expense, including amortization of debt premium	58	77	269	269	271	312	337
Portion of rental expenses on operating leases deemed to be representative of the interest factor	35	39	149	167	177	177	162
Earnings (loss) from continuing operations before income taxes and fixed charges	851	725	2,784	2,509	2,289	2,647	2,394
Fixed Charges:	93	116	418	436	448	489	499
Ratio of earnings to fixed charges	9.2	6.3	6.7	5.8	5.1	5.4	4.8

(1) Certain prior-period information has been reclassified to conform to the current year's presentation, including the effect of the spin-off of Shibuilding.

NORTHROP GRUMMAN CORPORATION

EXHIBIT 15

LETTER FROM INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

April 26, 2011

Northrop Grumman Corporation
1840 Century Park East
Los Angeles, California

We have reviewed, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the unaudited interim financial information of Northrop Grumman Corporation and subsidiaries for the periods ended March 31, 2011, and 2010, as indicated in our report dated April 26, 2011; because we did not perform an audit, we expressed no opinion on that information.

We are aware that our report referred to above, which is included in your Quarterly Report on Form 10-Q for the quarter ended March, 31, 2011, is incorporated by reference in Registration Statement Nos. 033-49667, 033-59815, 033-59853, 333-67266, 333-100179, 333-107734, 333-121104, 333-125120, 333-127317, 333-152596 on Form S-8; Registration Statement No. 333-83672 on Form S-4; and Registration Statement No. 333-152596 on Form S-3.

We also are aware that the aforementioned report, pursuant to Rule 436(c) under the Securities Act of 1933, is not considered a part of the Registration Statement prepared or certified by an accountant or a report prepared or certified by an accountant within the meaning of Sections 7 and 11 of that Act.

/s/ Deloitte & Touche LLP
Los Angeles, California

NORTHROP GRUMMAN CORPORATION

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
RULE 13a-14(a)/15d-14(a) 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-Q 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: April 26, 2011

/s/ Wesley G. Bush

Wesley G. Bush
Chief Executive Officer and President

NORTHROP GRUMMAN CORPORATION

EXHIBIT 31.2

CERTIFICATION PURSUANT TO
RULE 13a-14(a)/15d-14(a) 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-Q 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: April 26, 2011

/s/ James F. Palmer

James F. Palmer
Corporate Vice President and Chief Financial Officer

NORTHROP GRUMMAN CORPORATION

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 Quarterly Report of Northrop Grumman Corporation (the "company") on Form 10-Q for the period ended March 31, 2011, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Wesley G. Bush, 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 13(a) or 15(d) 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: April 26, 2011

/s/ Wesley G. Bush

Wesley G. Bush
Chief Executive Officer and President

NORTHROP GRUMMAN CORPORATION

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 Quarterly Report of Northrop Grumman Corporation (the "company") on Form 10-Q for the period ended March 31, 2011, 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 13(a) or 15(d) 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: April 26, 2011

/s/ James F. Palmer

James F. Palmer
Corporate Vice President and Chief Financial Officer