

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

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**FORM 10-Q**

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

For the Quarterly Period Ended March 31, 2003

or

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 1-16411

**NORTHROP GRUMMAN CORPORATION**

(Exact name of registrant as specified in its charter)

**DELAWARE**

(State or other jurisdiction of  
incorporation or organization)

**95-4840775**

(I.R.S. Employer  
Identification Number)

**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 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 is an accelerated filer (as defined in Exchange Act Rule 12b-2).

Yes

No

**APPLICABLE ONLY TO CORPORATE ISSUERS**

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

As of May 7, 2003

Common stock outstanding

182,908,817 shares

Preferred stock outstanding

3,500,000 shares

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## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements

## CONSOLIDATED CONDENSED STATEMENTS OF FINANCIAL POSITION

<i>\$ in millions</i>	(Unaudited) March 31, 2003	December 31, 2002
<b>Assets:</b>		
Cash and cash equivalents	\$ 408	\$ 1,412
Accounts receivable, net of progress payments of \$17,502 in 2003 and \$16,152 in 2002	3,132	2,889
Inventoried costs, net of progress payments of \$894 in 2003 and \$988 in 2002	1,158	1,091
Deferred income taxes	660	662
Prepaid expenses and other current assets	170	160
Assets of businesses held for sale	408	9,621
<b>Total current assets</b>	<b>5,936</b>	<b>15,835</b>
<b>Net property, plant and equipment</b>	<b>4,009</b>	<b>3,605</b>
Goodwill	17,343	15,657
Other purchased intangibles, net of accumulated amortization of \$817 in 2003 and \$760 in 2002	1,843	2,553
Prepaid retiree benefits cost and intangible pension asset	3,540	3,618
Deferred income taxes	491	174
Miscellaneous other assets	1,195	824
<b>Total other assets</b>	<b>24,412</b>	<b>22,826</b>
<b>Total Assets</b>	<b>\$ 34,357</b>	<b>\$ 42,266</b>

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**

<i>\$ in millions</i>	(Unaudited) March 31, 2003	December 31, 2002
<b>Liabilities and Shareholders' Equity:</b>		
Notes payable to banks	\$ 80	\$ 22
Current portion of long-term debt	196	203
Trade accounts payable	1,282	1,427
Accrued employees' compensation	907	1,018
Advances on contracts	1,097	1,006
Contract loss provisions	457	453
Income taxes payable	292	1,237
Other current liabilities	1,428	1,414
Liabilities of businesses held for sale	137	4,593
<b>Total current liabilities</b>	<b>5,876</b>	<b>11,373</b>
Long-term debt	6,808	9,398
Accrued retiree benefits	5,977	5,942
Other long-term liabilities	690	742
Minority interest	139	139
Mandatorily redeemable preferred stock	350	350
Paid-in capital		
Preferred stock, 10,000,000 shares authorized; 3,500,000 shares issued and outstanding, reported above		
Common stock, 800,000,000 shares authorized; issued and outstanding: 2003 – 182,902,567; 2002 – 182,602,390	12,522	12,511
Retained earnings	3,044	2,870
Unearned compensation	(10)	(11)
Accumulated other comprehensive loss	(1,039)	(1,048)
<b>Total shareholders' equity</b>	<b>14,517</b>	<b>14,322</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>\$ 34,357</b>	<b>\$ 42,266</b>

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

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**
**CONSOLIDATED CONDENSED STATEMENTS OF OPERATIONS  
(Unaudited)**

<i>Three months ended March 31, \$ in millions, except per share</i>	<b>2003</b>	2002
Product sales and service revenues	\$ 5,866	\$ 3,931
Cost of product sales and service revenues		
Operating costs	4,963	3,260
Administrative and general expenses	575	358
Operating margin	328	313
Interest income	12	2
Interest expense	(144)	(109)
Other, net	17	10
Income from continuing operations before income taxes and cumulative effect of accounting change	213	216
Federal and foreign income taxes	39	67
Income from continuing operations before cumulative effect of accounting change	174	149
Income from discontinued operations, net of tax	80	
Loss on disposal of discontinued operations, net of tax	(1)	
Income before cumulative effect of accounting change	253	149
Cumulative effect of accounting change		(432)
Net income (loss)	\$ 253	\$ (283)
Weighted average common shares outstanding, in millions	182.7	111.3
Basic earnings (loss) per common share		
Continuing operations	\$ .92	\$ 1.29
Discontinued operations	.43	
Disposal of discontinued operations		
Before cumulative effect of accounting change	1.35	1.29
Cumulative effect of accounting change		(3.88)
Basic earnings (loss) per common share	\$ 1.35	\$ (2.59)
Diluted earnings (loss) per share		
Continuing operations	\$ .91	\$ 1.27
Discontinued operations	.43	
Disposal of discontinued operations		
Before cumulative effect of accounting change	1.34	1.27
Cumulative effect of accounting change		(3.83)
Diluted earnings (loss) per share	\$ 1.34	\$ (2.56)
Dividends per common share	\$ .40	\$ .40
Dividends per mandatorily redeemable preferred share	\$ 1.75	\$ 1.75

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

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**

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

<i>Three months ended March 31, \$ in millions</i>	<b>2003</b>	<b>2002</b>
<b>Paid-in Capital</b>		
At beginning of year	\$ 12,511	\$ 4,451
Stock issued in purchase of businesses		306
Employee stock awards and options exercised	11	56
	<b>12,522</b>	<b>4,813</b>
<b>Retained Earnings</b>		
At beginning of year	2,870	3,011
Net income (loss)	253	(283)
Cash dividends	(79)	(51)
	<b>3,044</b>	<b>2,677</b>
<b>Unearned Compensation</b>		
At beginning of year	(11)	(18)
Amortization of unearned compensation	1	3
	<b>(10)</b>	<b>(15)</b>
<b>Accumulated Other Comprehensive Loss</b>		
At beginning of year	(1,048)	(53)
Change in cumulative translation adjustment	9	
	<b>(1,039)</b>	<b>(53)</b>
<b>Total shareholders' equity</b>	<b>\$ 14,517</b>	<b>\$ 7,422</b>

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

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**
**CONSOLIDATED CONDENSED STATEMENTS OF CASH FLOWS  
(Unaudited)**
*Three months ended March 31, \$ in millions*
**2003**      **2002**
**Operating Activities**
**Sources of Cash—Continuing Operations**

Cash received from customers

Progress payments      \$ 1,593      \$ 269

Other collections      4,188      3,616

Interest received      12      2

Income tax refunds received      8      41

Other cash receipts      14      12

**Cash provided by operating activities      5,815      3,940**
**Uses of Cash—Continuing Operations**

Cash paid to suppliers and employees      5,705      3,893

Interest paid      219      130

Income taxes paid      1,038      31

Other cash payments      9      2

**Cash used in operating activities      6,971      4,056**
**Cash used in continuing operations      (1,156)      (116)**
**Cash provided by discontinued operations      44      17**
**Net cash used in operating activities      (1,112)      (99)**
**Investing Activities**
**Proceeds from sale of businesses, net of cash divested      3,305**
**Payment for businesses purchased, net of cash acquired      (23)      (161)**
**Additions to property, plant and equipment      (89)      (69)**
**Other investing activities, net      5      (1)**
**Discontinued operations      (67)      (3)**
**Net cash provided by (used in) investing activities      3,131      (234)**
**Financing Activities**
**Borrowings under lines of credit      758      403**
**Repayment of borrowings under lines of credit           (421)**
**Principal payments of long-term debt/capital leases      (3,366)**
**Proceeds from issuance of stock      5      51**
**Dividends paid      (79)      (51)**
**Discontinued operations      (341)      2**
**Net cash used in financing activities      (3,023)      (16)**
**Decrease in cash and cash equivalents      (1,004)      (349)**
**Cash and cash equivalents balance at beginning of period      1,412      464**
**Cash and cash equivalents balance at end of period      \$ 408      \$ 115**

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**
*Three months ended March 31, \$ in millions*
**2003**
**2002**
**Reconciliation of Net Income (Loss) to Net Cash**
**Provided by Operating Activities:**

Net income (loss)	\$ 253	\$ (283)
Adjustments to reconcile net income (loss) to net cash used		
Depreciation	116	85
Amortization of intangible assets	57	55
Common stock issued to employees	6	(2)
Change in accounting principle		432
Loss on disposal of discontinued operations, net of tax	1	
Loss on disposals of property, plant and equipment	2	15
Decrease (increase) in		
Accounts receivable	(1,631)	(1,325)
Inventoried costs	26	(168)
Prepaid expenses and other current assets	5	(43)
Increase (decrease) in		
Progress payments	1,257	1,369
Accounts payable and accruals	(457)	(278)
Provisions for contract losses	2	(29)
Deferred income taxes	66	(175)
Income taxes payable	(974)	256
Retiree benefits	112	(41)
Other noncash transactions	3	16
Cash used in continuing operations	(1,156)	(116)
Cash provided by discontinued operations	44	17
Net cash used in operating activities	\$ (1,112)	\$ (99)

**Noncash Investing and Financing Activities:**
**Sale of business**

Note receivable, net of discount	\$ 455
Investment in unconsolidated affiliate	170

**Purchase of businesses**

Fair value of assets acquired	\$ 722
Cash paid	(161)
Common stock issued	(306)

Liabilities assumed	\$ 255
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*The accompanying notes are an integral part of these consolidated condensed financial statements.*

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**

**SELECTED INDUSTRY SEGMENT INFORMATION  
(Unaudited)**

<i>Three months ended March 31, \$ in millions</i>	<b>2003</b>	<b>2002</b>
<b>Net Sales</b>		
Electronic Systems	\$ 1,338	\$ 1,201
Ships	1,201	1,077
Information Technology	1,092	929
Mission Systems	929	
Integrated Systems	816	807
Space Technology	648	
Intersegment eliminations	(158)	(83)
<b>Total Net Sales</b>	<b>\$ 5,866</b>	<b>\$ 3,931</b>
<b>Operating Margin</b>		
Electronic Systems	\$ 121	\$ 90
Ships	75	67
Information Technology	62	50
Mission Systems	56	
Integrated Systems	87	93
Space Technology	32	
<b>Total Segment Operating Margin</b>	<b>433</b>	<b>300</b>
Adjustments to reconcile to total operating margin:		
Unallocated expenses	(30)	(31)
Pension (expense) income	(140)	24
Reversal of CAS pension expense included above	71	26
Reversal of royalty income included above	(6)	(6)
<b>Total Operating Margin</b>	<b>\$ 328</b>	<b>\$ 313</b>
<b>Contract Acquisitions</b>		
Electronic Systems	\$ 1,578	\$ 1,424
Ships	868	1,847
Information Technology	1,288	1,073
Mission Systems	1,276	
Integrated Systems	1,637	1,310
Space Technology	767	
Intersegment eliminations	(324)	(44)
<b>Total Contract Acquisitions</b>	<b>\$ 7,090</b>	<b>\$ 5,610</b>
<b>Funded Order Backlog</b>		
Electronic Systems	\$ 6,735	\$ 6,120
Ships	10,028	10,542
Information Technology	1,785	1,580
Mission Systems	3,095	
Integrated Systems	4,559	4,026
Space Technology	1,427	
Intersegment eliminations	(352)	(188)
<b>Total Funded Order Backlog</b>	<b>\$ 27,277</b>	<b>\$ 22,080</b>



**NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS**

**(Unaudited)**

**Basis of Presentation**

The unaudited consolidated condensed financial statements include the accounts of Northrop Grumman Corporation and its subsidiaries (the company). All material intercompany accounts, transactions and profits are eliminated in consolidation. See the "Acquisitions" and "Discontinued Operations" footnotes contained herein for additional information.

The accompanying unaudited consolidated condensed financial statements of the company have been prepared by management in accordance with the instructions to Form 10-Q of the Securities and Exchange Commission. These statements include all adjustments considered necessary by management to present a fair statement of the results of operations, financial position and cash flows. The results reported in these financial statements should not be regarded as necessarily indicative of results that may be expected for the entire year. These financial statements should be read in conjunction with the Notes to Consolidated Financial Statements and Independent Auditors' Report contained in the company's 2002 Annual Report.

**Financial Statement Reclassification**

Certain prior year amounts have been reclassified to conform to the 2003 presentation.

**Earnings per Share**

Basic earnings per share from continuing operations before cumulative effect of accounting change are calculated by dividing income available to common shareholders from continuing operations before cumulative effect of accounting change by the weighted average number of shares of common stock outstanding during each period, after giving recognition to stock splits and stock dividends. Income available to common shareholders from continuing operations before cumulative effect of accounting change is calculated by reducing income from continuing operations before cumulative effect of accounting change by the amount of dividends accrued on mandatorily redeemable preferred stock. Diluted earnings per share from continuing operations before cumulative effect of accounting change reflect the dilutive effect of stock options and other stock awards granted to employees under stock-based compensation plans. Shares issuable pursuant to mandatorily redeemable preferred stock and equity security units have not been included in the diluted earnings per share calculation because their effect is currently anti-dilutive.

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**

Basic and diluted earnings per share from continuing operations before cumulative effect of accounting change are calculated as follows:

<i>Three months ended March 31, \$ in millions, except per share</i>	<b>2003</b>	<b>2002</b>
<b>Basic Earnings per Share</b>		
Income from continuing operations before cumulative effect of accounting change	\$ 174	\$ 149
Less preferred dividends	6	6
Income available to common shareholders from continuing operations before cumulative effect of accounting change	\$ 168	\$ 143
Weighted-average common shares outstanding, in millions	182.69	111.28
<b>Basic earnings per share from continuing operations before cumulative effect of accounting change</b>	<b>\$ .92</b>	<b>\$ 1.29</b>
<b>Diluted Earnings per Share</b>		
Income from continuing operations before cumulative effect of accounting change	\$ 174	\$ 149
Less preferred dividends	6	6
Income available to common shareholders from continuing operations before cumulative effect of accounting change	\$ 168	\$ 143
Weighted-average common shares outstanding, in millions	182.69	111.28
Dilutive effect of stock options and awards	1.57	1.48
Weighted-average diluted shares outstanding, in millions	184.26	112.76
<b>Diluted earnings per share from continuing operations before cumulative effect of accounting change</b>	<b>\$ .91</b>	<b>\$ 1.27</b>

**Goodwill and Other Purchased Intangible Assets**

The company accounts for goodwill under the impairment-only approach prescribed by Statement of Financial Accounting Standards (SFAS) No. 142 – *Goodwill and Other Intangible Assets*. Impairment tests are performed at least annually as of April 30, and more often as circumstances require. When it is determined that an impairment has occurred, an appropriate charge to operations is recorded.

Goodwill and other purchased intangible assets balances are included in the identifiable assets of the segment to which they have been assigned. Any goodwill impairment, as well as the amortization of other purchased intangible assets, is charged against the respective segment operating margin.

The changes in the carrying amount of goodwill for the three months ended March 31, 2003, are as follows:

<i>\$ in millions</i>	Balance as of 1/01/03	Fair value adjustments to net assets acquired	Balance as of 3/31/03
Electronic Systems	\$ 2,557	\$ 43	\$ 2,600
Ships	3,635		3,635
Information Technology	1,117		1,117
Mission Systems	3,705	1,959	5,664
Integrated Systems	938		938
Space Technology	3,705	(316)	3,389
<b>Total</b>	<b>\$ 15,657</b>	<b>\$ 1,686</b>	<b>\$ 17,343</b>

## NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES

In connection with the acquisition of TRW Inc. (TRW), the company has allocated a preliminary estimate of \$380 million of the purchase price as purchased intangible assets using a preliminary weighted average life of 7 years. See the "Acquisitions" footnote contained herein for additional information. The table below summarizes the company's aggregate purchased intangible assets as of March 31, 2003, and December 31, 2002.

<i>\$ in millions</i>	March 31, 2003		December 31, 2002	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Contract and program intangibles	\$ 2,598	\$ (770)	\$ 3,253	\$ (714)
Other purchased intangibles	62	(47)	60	(46)
Total	\$ 2,660	\$ (817)	\$ 3,313	\$ (760)

All of the company's purchased intangible assets are subject to amortization and are being amortized on a straight-line basis over an aggregate weighted average period of 22 years. Aggregate amortization expense for the three months ended March 31, 2003, was \$57 million.

The table below shows expected amortization for the next five years:

<i>\$ in millions</i>	
Year Ended December 31	
2003 (April 1 to December 31)	\$ 171
2004	227
2005	218
2006	127
2007	114
2008	106

### Discontinued Operations

Discontinued operations includes the January and February 2003 results of TRW Automotive (Auto), the sale of which was completed February 28, 2003, and the company's remaining Component Technologies businesses. The company's Condensed Consolidated Financial Statements and related footnote disclosures reflect the Auto and Component Technologies businesses as discontinued operations, net of applicable income taxes, for all periods presented in accordance with SFAS No. 144 – *Accounting for the Impairment or Disposal of Long-Lived Assets*. In addition, the assets and liabilities of these businesses have been reclassified as held for sale.

Proceeds received in the first quarter 2003 from the sale of Auto included \$3.3 billion in cash, a \$600 million face value payment-in-kind note, and a 19.6 percent investment in the new enterprise, valued at \$170 million. The cash received was adjusted from the sale agreement amount by cash sold with the business, preliminary purchase price adjustments, and an asset retained pending resolution of litigation. The payment-in-kind note, which matures in 2018 and bears interest at an effective yield of 11.7 percent per annum, was recorded at its fair value based on current market conditions of \$455 million. Auto also assumed debt of approximately \$250 million. Final valuation of the Auto transaction will occur upon settlement of purchase price adjustments, expected to be completed in the second quarter of 2003, and may result in additional adjustments. The company has retained certain liabilities associated with the Auto business as well as the Aeronautical Systems business that TRW divested in 2002. The settlements of these liabilities are not expected to have a material effect on the company's financial position, results of operations or cash flows.

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**

Operating results of the discontinued businesses for the quarterly periods ended March 31, 2003 and 2002, respectively, are as follows:

<i>Three months ended March 31, \$ in millions</i>	<b>2003</b>	2002
Sales	<b>\$2,046</b>	\$123
Income from discontinued operations	<b>\$ 123</b>	
Income tax expense	<b>(43)</b>	
Income from discontinued operations, net of tax	<b>\$ 80</b>	
Loss on disposal of discontinued operations	<b>\$ (1)</b>	
Income tax expense		
Loss on disposal of discontinued operations, net of tax	<b>\$ (1)</b>	

Tax rates vary between discontinued operations and the company's effective tax rate due to the non-deductibility of goodwill for tax purposes.

The major classes of assets and liabilities for the discontinued businesses at March 31, 2003, and December 31, 2002, were as follows:

<i>(\$ in millions)</i>	<b>March 31, 2003</b>	December 31, 2002
Current assets	<b>\$116</b>	\$2,161
Net property, plant and equipments	<b>140</b>	2,799
Goodwill and other purchased intangibles	<b>149</b>	4,117
Miscellaneous other assets	<b>3</b>	544
Assets of businesses held for sale	<b>\$408</b>	\$9,621
Accounts payable and other current liabilities	<b>\$ 87</b>	\$2,661
Long-term debt	<b>1</b>	229
Other long-term liabilities	<b>49</b>	1,703
Liabilities of businesses held for sale	<b>\$137</b>	\$4,593

**Acquisitions**

In December 2002, the company purchased 100 percent of the common stock of TRW. TRW's defense business units are operated as two separate sectors, Mission Systems and Space Technology. In connection with the acquisition of TRW, the company entered into a formal stipulation and consent decree (Final Judgment) with the United States Department of Justice that was filed in the U.S. District Court for the District of Columbia on December 11, 2002. Key provisions of the consent decree are intended to assure that the merger will not impede fair and open competition related to certain electronic satellite payloads. The consent decree does not require the divestiture of any businesses and will permit the company to operate its businesses and those of TRW as planned.

The TRW acquisition is accounted for using the purchase method of accounting. Under the purchase method of accounting, the purchase price is allocated to the underlying tangible and intangible assets acquired and liabilities assumed based on their respective fair market values, with the excess recorded as goodwill. The financial statements and the information from which they were derived reflect preliminary estimates of the fair market value of the assets acquired and liabilities assumed and the related allocations of purchase price and preliminary estimates of adjustments necessary to conform TRW to the company's accounting policies. The company is currently reviewing preliminary accounting conformance adjustments and preliminary estimates of the fair market value of assets acquired and liabilities assumed, including valuations associated with certain contracts, debt, environmental and other legal contingencies, restructuring activities, warranty liabilities, income taxes, insurance liabilities,

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**

property, plant, and equipment, intangible assets, retiree benefits assets and liabilities, and any purchase price adjustments and retained liabilities associated with the Auto and Aeronautical Systems divestitures. The final determination of the fair market value of assets acquired and liabilities assumed and final allocation of the purchase price may differ significantly from the amounts included in the financial statements contained in this Form 10-Q. Adjustments to the purchase price allocations of TRW are expected to be finalized by the fourth quarter of 2003 and will be reflected in future filings. There can be no assurance that such adjustments will not be material.

The following unaudited pro forma condensed financial data for the quarters ended March 31, 2003, and March 31, 2002, are based upon the historical financial statements of the company and TRW adjusted to give effect to the TRW acquisition and the Auto and Aeronautical Systems divestitures as if all had occurred on January 1, 2002.

<i>Three months ended March 31, \$ in millions, except per share</i>	<b>(Pro-forma) 2003</b>	(Pro-forma) 2002
Net sales	<b>\$5,866</b>	\$5,223
Net income from continuing operations before cumulative effect of accounting change	<b>174</b>	148
Net income (loss)	<b>176</b>	(284)
Basic earnings (loss) per share	<b>.93</b>	(1.61)
Diluted earnings (loss) per share	<b>.92</b>	(1.59)

**Long-Term Debt**

In March 2003, the company's wholly owned subsidiary, Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.), commenced offers to purchase any or all of certain designated outstanding Northrop Grumman Space & Mission Systems Corp. debt securities in a debt reduction plan expected to be completed by the end of the second quarter of 2003. In the first phase, approximately \$2.4 billion in aggregate principal amount of outstanding debt securities had been tendered and accepted for purchase, for a total purchase price of approximately \$2.9 billion, (including accrued and unpaid interest on the securities). In the second phase, through the first quarter of 2002, the company purchased on the open market approximately \$438 million in aggregate principal amount for a total purchase price of \$538 million (including accrued and unpaid interest on the securities) of Northrop Grumman Space & Mission Systems Corp. debt securities. Cash proceeds from the sale of Auto were used to complete these transactions, which contributed to the reduction of long-term debt to \$6.8 billion at March 31, 2003, from the \$9.4 billion reported at December 31, 2002.

Long-term debt at March 31, 2003, and December 31, 2002, consisted of the following:

<i>\$ in millions</i>	<b>March 31, 2003</b>	December 31, 2002
Notes due 2003 to 2028, rates from 3.00% to 9.375%	<b>\$3,087</b>	\$5,946
Equity security unit notes due 2006, 7.25%	<b>690</b>	690
Debentures due 2016 to 2036, rates from 6.75% to 7.75%	<b>2,429</b>	2,826
Revolving credit facility, weighted average interest rate of 2.32%	<b>700</b>	
Other indebtedness due 2004 to 2024, rates from 7.0% to 8.5%	<b>98</b>	139
	<b>7,004</b>	9,601
Less current portion	<b>196</b>	203
	<b>\$6,808</b>	\$9,398

**Stock-Based Compensation**

The company applies Accounting Principles Board Opinion 25 – *Accounting for Stock Issued to Employees* and related Interpretations in accounting for awards made under the company’s stock-based compensation plans. When stock options are exercised, the amount of the cash proceeds to the company is recorded as an increase to paid-in capital. No compensation expense is recognized in connection with the company’s original grant of stock options. Compensation expense for restricted performance stock rights is estimated and accrued over the vesting period.

March 31, \$ in millions, except per share

	2003	2002
Net income (loss) as reported	\$ 253	\$ (283)
Stock-based compensation, net of tax, included in net income (loss) as reported	7	9
Stock-based compensation, net of tax, that would have been included in net income (loss), if the fair value method had been applied to all awards	(14)	(16)
Pro-forma net income (loss) using the fair value method	\$ 246	\$ (290)
<b>Basic Earnings (Loss) Per Share</b>		
As reported	\$ 1.35	\$ (2.59)
Pro-forma	\$ 1.31	\$ (2.66)
<b>Diluted Earnings (Loss) Per Share</b>		
As reported	\$ 1.34	\$ (2.56)
Pro-forma	\$ 1.30	\$ (2.63)

Had compensation expense been determined based on the fair value at the grant dates for stock option awards, consistent with the method of SFAS No. 123 – *Accounting for Stock Based Compensation*, net income, basic earnings (loss) per share, and diluted earnings (loss) per share would have been as shown in the table above. These amounts were determined using weighted-average per share fair values for market options granted in 2003 and 2002 of \$31 and \$27, respectively. The fair value of each option grant was estimated on the date of grant using the Black-Scholes option-pricing model based on an expected life of six years and for 2003 and 2002, respectively, the following additional assumptions: dividend yield, 1.8 percent and 1.6 percent; expected volatility, 36 percent and 35 percent; and risk-free interest rate, 3.2 percent and 3.6 percent.

**Minority Interest**

As of December 31, 2002, TAI had outstanding 100,000 shares of Series A Convertible Preferred Stock (TAI Series A) and 30,000 shares of Series B Preferred Stock (TAI Series B). The company expects to redeem or repurchase all of the outstanding TAI Series A and Series B shares in the second quarter of 2003.

**New Accounting Pronouncements**

In April 2003, the Financial Accounting Standards Board issued SFAS No. 149 – *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*, which clarifies and amends certain definitions and characteristics of derivative instruments contained in SFAS No. 133 – *Accounting for Derivative Instruments and Hedging Activities*, FIN 45: *Guarantor’s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others* and other existing pronouncements. Adoption of this statement will not have an effect on the company’s financial position, results of operations or cash flows.

In January 2003, the Financial Accounting Standards Board issued FIN 46 – *Consolidation of Variable Interest Entities an interpretation of ARB No. 51*. This Interpretation explains how to identify variable interest entities and how an enterprise assesses its interests in a variable interest entity to decide whether to consolidate that entity. This Interpretation requires existing unconsolidated variable interest entities to be consolidated by their primary beneficiaries if the entities do not effectively disperse risks among parties involved. Application of this Interpretation will not have an effect on the company’s financial position, results of operations or cash flows.

In November 2002, the Financial Accounting Standards Board issued FIN 45 – *Guarantor’s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. This Interpretation elaborates on the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken by issuing the guarantee. Application of this Interpretation did not have a significant effect on the company’s financial position, results of operations or cash flows.

In June 2002, the Financial Accounting Standards Board issued SFAS No. 146 – *Accounting for Costs Associated with Exit or Disposal Activities*, which requires a liability for a cost associated with an exit or disposal activity to be recognized and measured at its fair value in the period in which the liability is incurred. This Statement was adopted January 1, 2003, and did not have a significant effect on the company’s financial position, results of operations or cash flows.

In August 2001, the Financial Accounting Standards Board issued SFAS No. 143 – *Accounting for Asset Retirement Obligations*. SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. This Statement becomes effective for financial statements issued for fiscal years beginning after June 15, 2002. This Statement was adopted January 1, 2003, and did not have a significant effect on the company’s financial position, results of operations or cash flows.

**Item 2. Management’s Discussion and Analysis of the Company’s Financial Condition and Results of Operations**

First quarter 2003 results include the operations of TRW Inc. (TRW), acquired in the fourth quarter of 2002. Operating results of the acquired TRW businesses are reported as the Mission Systems and Space Technology sectors of the company. This acquisition is an important component of the increase in sales, operating margin and net income for the 2003 first quarter compared with the first quarter of 2002.

**NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES**
**MEASURES OF PERFORMANCE**

Sales for the first quarter of 2003 increased 49 percent to \$5.9 billion as compared to \$3.9 billion in the 2002 quarter. Sales for 2003 are expected to be between \$25 billion and \$26 billion. Sales by business area are outlined below. Certain prior year amounts have been reclassified to conform to the 2003 presentation.

<i>Three months ended March 31, \$ in millions</i>	<b>2003</b>	<b>2002</b>
<b>Electronic Systems</b>		
Aerospace Electronic Systems	\$ 382	\$ 310
C <sup>4</sup> ISR&N	279	254
Defensive Electronic Systems	214	179
Navigation Systems	183	166
Space Systems	110	116
Other	170	176
	<b>1,338</b>	<b>1,201</b>
<b>Ships</b>		
Aircraft Carriers	470	479
Surface Combatants	321	189
Amphibious & Auxiliary	203	173
Submarines	132	131
Commercial & International	36	71
Services & Other	39	59
Intrasegment Eliminations		(25)
	<b>1,201</b>	<b>1,077</b>
<b>Information Technology</b>		
Government Information Technology	697	602
Enterprise Information Technology	182	138
Technology Services	172	152
Commercial Information Technology	67	57
Intrasegment Eliminations	(26)	(20)
	<b>1,092</b>	<b>929</b>
<b>Mission Systems</b>		
Command, Control & Intelligence	354	
Federal & Civil Information Systems	223	
Missile Systems	213	
Technical Services	165	
Intrasegment Eliminations	(26)	
	<b>929</b>	
<b>Integrated Systems</b>		
Air Combat Systems	507	487
Airborne Early Warning/Electronic Warfare	179	168
Airborne Ground Surveillance/Battle Management	130	152
	<b>816</b>	<b>807</b>
<b>Space Technology</b>		
Intelligence, Surveillance & Reconnaissance	179	
Satellite Communications	132	
Civil Space	117	
Missile Defense	84	
Radio Systems	85	
Technology	51	
	<b>648</b>	
Intersegment Eliminations	(158)	(83)
<b>Total sales</b>	<b>\$ 5,866</b>	<b>\$ 3,931</b>



Electronic Systems sector sales for the first quarter of 2003 increased 11 percent to \$1.3 billion from \$1.2 billion in the same period in 2002. Operating margin for the quarter increased 34 percent to \$121 million as compared to \$90 million in the 2002 period. First quarter 2003 results for sales and operating margin reflect the favorable impact of accelerated deliveries in Aerospace Electronic Systems on the Apache Longbow, F-16, and F-22 programs. The results also include strong sales performance in the C<sup>4</sup>ISR&N and Defensive Electronic Systems business areas. For 2003, Electronic Systems sales are expected to be between \$5.9 billion and \$6.1 billion with operating margin of nearly 10 percent of sales.

Ships, which includes the financial results of the Newport News and Ship Systems sectors, generated sales of \$1.2 billion and operating margin of \$75 million for the first quarter of 2003, compared to sales of \$1.1 billion and operating margin of \$67 million in the 2002 period. The sales growth reflects increased revenue in the Surface Combatants business area, specifically DD (X), the Navy's future transformational surface combatant program. Operating margin for the quarter reflects lower purchased intangibles amortization expense in 2003. Sales in 2003 are expected to be just over \$5 billion, with operating margin as a percent of sales expected to be in the mid-6 percent range.

The Information Technology sector reported first quarter 2003 sales of \$1.1 billion compared with sales of \$929 million for the same period of 2002, with growth in all business areas. For the quarter, the sector generated operating margin of \$62 million compared to \$50 million reported in the first quarter of 2002, reflecting increased revenues and a higher operating margin rate on Government Information Technology business. For 2003, sales are expected to be between \$4.7 billion and \$4.9 billion with operating margin as a percent of sales of nearly 6 percent.

Mission Systems reported 2003 first quarter sales of \$929 million, led by its Command, Control & Intelligence Systems and its Federal & Civil Information Systems business areas. The segment's 2003 first quarter operating margin of \$56 million includes a \$9 million preliminary estimate of purchased intangible amortization expense. For 2003, sales are expected to be approximately \$3.9 billion with operating margin as a percent of sales of approximately 6 percent.

Sales for Integrated Systems were \$816 million in the first quarter of 2003 compared to \$807 million for the 2002 first quarter, reflecting increased F-35, Global Hawk and MP-RTIP sales, which were partially offset by lower Joint STARS and F/A-18E/F sales. Operating margin for the 2003 first quarter declined to \$87 million from \$93 million in 2002, principally due to lower operating margin on Joint STARS and F/A-18E/F contracts, partially offset by increased margin on unmanned systems and E-2C contracts. For 2003, sales are expected to be approximately \$3.6 billion to \$3.8 billion with operating margin as a percent of sales expected to be between 8 percent and 8.5 percent.

Sales for Space Technology for the 2003 first quarter totaled \$648 million, led by revenues from its Intelligence, Surveillance & Reconnaissance and its Satellite Communications business areas. The sector's operating margin of \$32 million included an \$8 million preliminary estimate for purchased intangible amortization expense. For 2003, sales are expected to be approximately \$2.5 billion with operating margin as a percent of sales of approximately 6 percent.

First quarter 2003 operating margin included \$140 million of pension expense compared with \$24 million of pension income reported in the first quarter of 2002. Pension expense for 2003 is expected to total approximately \$560 million. Total pension income or expense determined under Generally Accepted Accounting Principles (GAAP) is reported separately as a reconciling item in the table "Selected Industry Segment Information" under the caption "Pension (expense) income." Segment operating margin reflects inclusion of pension and other retiree benefit expenses in the sectors' cost of sales to the extent that these costs are currently recognized under government Cost Accounting Standards (CAS). In order to reconcile from segment operating margin to total company operating margin, these amounts are reported under the caption "Reversal of CAS pension expense included above" and for the year 2003 are estimated to be approximately \$280 million.

Interest income for the first quarter of 2003 as compared to the first quarter of 2002 reflects earnings from the note received in connection with the sale of Auto and interest earned on a tax refund.

Interest expense for the first quarter of 2003 increased to \$144 million from \$109 million reported in the 2002 first quarter principally as a result of the debt acquired in the acquisition of TRW.

Other, net for the first quarter of 2003 as compared to the first quarter of 2002 incorporates earnings from the Information Technology Sector Eagle Alliance joint venture.

During the first quarter of 2003, the company recorded a \$26 million tax credit for additional research tax credits covering the years 1981 through 1990, resulting in an 18 percent effective tax rate in the 2003 first quarter as compared to 31 percent in the 2002 first quarter. For the total year 2003, the company expects the effective tax rate to be approximately 28 percent.

Net income for the first quarter of 2003 was \$253 million, or \$1.34 per share, compared to a loss of \$283 million, or \$2.56 per share, in the 2002 first quarter. First quarter 2003 earnings per share are based on weighted average diluted shares outstanding of 184.3 million versus 112.8 million for the first quarter of 2002. Income from discontinued operations was \$80 million in the first quarter of 2003. Results in the first quarter of 2002 included a \$432 million charge for the cumulative effect of an accounting change recorded upon adoption of SFAS No. 142 – *Goodwill and Other Intangible Assets*. The company had no material related party transactions in the first quarter of 2003 or 2002.

**Discontinued Operations**

Discontinued operations includes the January and February 2003 results of TRW Automotive (Auto), the sale of which was completed February 28, 2003, and the company's remaining Component Technologies businesses. The company's Condensed Consolidated Financial Statements and related footnote disclosures reflect the Auto and Component Technologies businesses as discontinued operations, net of applicable income taxes, for all periods presented in accordance with SFAS No. 144 – *Accounting for the Impairment or Disposal of Long-Lived Assets*. In addition, the assets and liabilities of these businesses have been reclassified as held for sale.

Proceeds received in the first quarter 2003 from the sale of Auto included \$3.3 billion in cash, a \$600 million face value payment-in-kind note, and a 19.6 percent investment in the new enterprise, valued at \$170 million. The cash received was adjusted from the sale agreement amount by cash sold with the business, preliminary purchase price adjustments, and an asset retained pending resolution of litigation. The payment-in-kind note, which matures in 2018 and bears interest at an effective yield of 11.7 percent per annum, was recorded at its fair value based on current market conditions of \$455 million. Auto also assumed debt of approximately \$250 million. Final valuation of the Auto transaction will occur upon settlement of purchase price adjustments, expected to be completed in the second quarter of 2003, and may result in additional adjustments. The company has retained certain liabilities associated with the Auto business as well as the Aeronautical Systems business that TRW divested in 2002. The settlements of these liabilities are not expected to have a material effect on the company's financial position, results of operations or cash flows.

**TRW Acquisition**

The TRW acquisition is accounted for using the purchase method of accounting. Under the purchase method of accounting, the purchase price is allocated to the underlying tangible and intangible assets acquired and liabilities assumed based on their respective fair market values, with the excess recorded as goodwill. The financial statements and the information from which they were derived reflect preliminary estimates of the fair market value of the assets acquired and liabilities assumed and the related allocations of purchase price and preliminary estimates of adjustments necessary to conform TRW to the company's accounting policies. The company is currently reviewing preliminary accounting conformance adjustments and preliminary estimates of the fair market value of assets acquired and liabilities assumed, including valuations associated with certain contracts, debt, environmental and other legal contingencies, restructuring activities, warranty liabilities, income taxes, insurance liabilities, property, plant, and equipment, intangible assets, retiree benefits assets and liabilities, and any purchase price adjustments and retained liabilities associated with the Auto and Aeronautical Systems divestitures. The final determination of the fair market value of assets acquired and liabilities assumed and final allocation of the purchase price may differ significantly from the amounts included in the financial statements contained in this Form 10-Q. Adjustments to the purchase price allocations of TRW are expected to be finalized by the fourth quarter of 2003 and will be reflected in future filings. There can be no assurance that such adjustments will not be material.

**Contract Acquisitions**

Contract acquisitions totaled \$7.1 billion for the first three months of 2003 up from \$5.6 billion reported for the same period a year ago, reflecting inclusion of the two new sectors, Mission Systems for \$1.3 billion and Space Technology for \$767 million. Last year, Ships reported contract acquisitions of \$1.8 billion resulting from the funding of *Virginia*-class submarines and refueling and overhaul of the carrier *USS Eisenhower*. The company's business backlog at March 31, 2003, increased to \$27.3 billion from \$22.1 billion reported a year earlier.

**Liquidity and Capital Resources**

In the first three-month period of 2003, the company used cash from operations of \$1.1 billion compared with a use of \$99 million for the same period last year. At March 31, 2003, net working capital was \$60 million which is the result of normal fluctuations in timing of receipts and disbursements, working down advances on contracts, and payments associated with acquired businesses and income tax liabilities. In the first quarter of 2003, cash used in operations reflects \$1 billion of taxes paid upon completion of the B-2 EMD contract and higher interest payments arising from the acquisition of TRW. The IRS is presently completing its audits of the B-2 program through the tax years ended December 31, 2000. Upon completion of these audits, the IRS may adopt a position that the B-2 program was completed in a year prior to 2002, which would create the potential for additional interest expense. Although it is not possible to predict the outcome of the tax audits at this time, management believes that its tax accounting for the B-2 program reflects the appropriate timing of contract completion. Presently, the IRS has not commenced its audits for tax years ended December 31, 2001 or 2002.

In March 2003, the company's wholly owned subsidiary, Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.), commenced offers to purchase any or all of certain designated outstanding Northrop Grumman Space & Mission Systems Corp. debt securities in a debt reduction plan expected to be completed by the end of the second quarter of 2003. In the first phase, approximately \$2.4 billion in aggregate principal amount of outstanding debt securities had been tendered and accepted for purchase, for a total purchase price of approximately \$2.9 billion (including accrued and unpaid interest on the securities). In the second phase, through the first quarter of 2003, the company purchased on the open market approximately \$438 million in aggregate principal amount for a total purchase price of \$538 million (including accrued and unpaid interest on the securities) of Northrop Grumman Space & Mission Systems Corp. debt securities. Cash proceeds from the sale of Auto were used to complete these transactions, which contributed to the reduction of long-term debt to \$6.8 billion at March 31, 2003, from the \$9.4 billion reported at December 31, 2002. While cash used in operations and quarter-end debt amounts reflect finalization of preliminary numbers announced on April 29, 2003, total cash remains unchanged.

For the remainder of 2003, cash generated from operations supplemented by borrowings under credit facilities are expected to be sufficient to service debt, finance capital expenditures and continue paying dividends to the company's shareholders. For 2003, the company expects cash from operating activities to be approximately \$1.1 billion to \$1.3 billion, before the \$1 billion B-2 tax payment.

**Critical Accounting Policies**

The company's financial statements are in conformity with generally accepted accounting principles. The preparation thereof requires management to make estimates and assumptions 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.

There have been no significant changes in the company's critical accounting policies during the first quarter of 2003.

**Financial Accounting Standards**

In April 2003, the Financial Accounting Standards Board issued SFAS No. 149 – *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*, which clarifies and amends certain definitions and characteristics of

derivative instruments contained in SFAS No. 133 – *Accounting for Derivative Instruments and Hedging Activities*, FIN 45: *Guarantor’s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others* and other existing pronouncements. Adoption of this statement will not have an effect on the company’s financial position, results of operations or cash flows.

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**Forward-Looking Information**

Certain statements and assumptions in this Management’s Discussion and Analysis and elsewhere in this Quarterly Report on Form 10-Q contain or are based on “forward-looking” information (that Northrop Grumman believes to be within the definition in the Private Securities Litigation Reform Act of 1995) and involve risks and uncertainties, and include, among others, statements in the future tense, and all statements accompanied by terms such as “project,” “expect,” “estimate,” “assume,” or variations thereof. This information reflects the company’s best estimates when made, but the company expressly disclaims any duty to update this information if new data becomes available or estimates change after the date of this Report.

Such “forward-looking” information is based on numerous assumptions and uncertainties, many of which are outside Northrop Grumman’s control. These include Northrop Grumman’s ability to successfully integrate its acquisitions, including TRW, to realize the preliminary estimates for accounting conformance and purchase accounting valuations for TRW which will be finalized in the 2003 fourth quarter and which may materially vary from these estimates, assumptions with respect to future revenues, expected program performance and cash flows, returns on pension plan assets and variability of pension actuarial and related assumptions, the outcome of litigation and appeals, environmental remediation, divestitures of businesses, successful reduction of debt, successful negotiation of contracts with labor unions, effective tax rates and timing and amounts of tax payments, and anticipated costs of capital investments, among other things. Northrop Grumman’s operations are subject to various additional risks and uncertainties resulting from its position as a supplier, either directly or as subcontractor or team member, to the U.S. Government and its agencies as well as to foreign governments and agencies; actual outcomes are dependent upon factors, including, without limitation, Northrop Grumman’s successful performance of internal plans; government customers’ budgetary constraints; customer changes in short-range and long-range

plans; domestic and international competition in both the defense and commercial areas; product performance; continued development and acceptance of new products; performance issues with key suppliers and subcontractors; government import and export policies; acquisition or termination of government contracts; the outcome of political and legal processes; legal, financial, and governmental risks related to international transactions and global needs for military aircraft, military and civilian electronic systems and support, information technology, naval vessels, space systems and related technologies, as well as other economic, political and technological risks and uncertainties and other risk factors set out in Northrop Grumman's filings from time to time with the Securities and Exchange Commission, including, without limitation, Northrop Grumman reports on Form 10-K and Form 10-Q.

**Item 3. Quantitative and Qualitative Disclosures About Market Risks**

The company is exposed to market risk, primarily related to interest rates and foreign currency exchange rates. Financial instruments subject to interest rate risk include fixed-rate long-term debt obligations, variable-rate short-term debt outstanding under the credit facility, short-term investments, and long-term notes receivable. At March 31, 2003, most borrowings were fixed-rate long-term debt obligations, significant portions of which are not callable until maturity. The company's sensitivity to a 1 percent change in interest rates is tied to its \$2.5 billion credit facility, which had a balance outstanding of approximately \$700 million at March 31, 2003. The estimated fluctuation in expense would be 1 percent of any outstanding balance. The company may enter into interest rate swap agreements to manage its exposure to interest rate fluctuations. At March 31, 2003, no interest rate swap agreements were in effect. The company enters 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. Foreign currencies are traditionally converted to U.S. dollars upon receipt to limit currency fluctuation exposures. At March 31, 2003, the amount of foreign currency forward contracts outstanding was not material. The company does not consider the market risk exposure relating to foreign currency exchange to be material. The company does not hold or issue derivative financial instruments for trading purposes. Standby letters of credit are used by the company to guarantee future performance on its contracts.

As disclosed in the company's Annual Report on Form 10-K for the year ended 2002, investments in RF Micro Devices, Inc. (RFMD) and Applera Corporation-Celera Genomics Group (Celera) acquired in connection with the acquisition of TRW, and the related hedge portion of the forward share sale agreements are carried at fair market value. As of March 31, 2003, the value of the investments and the hedge were equivalent. Accordingly, no gains or losses are expected to be recorded from these agreements.

**Item 4. Controls and Procedures**

- (a) Evaluation of disclosure controls and procedures. Registrant's principal executive officer (Chief Executive Officer and President) and principal financial officer (Corporate Vice President and Chief Financial Officer) have evaluated Registrant's disclosure controls and procedures as of a date within 90 days of the filing date of this Quarterly Report on Form 10-Q and have concluded that these controls and procedures are designed to ensure that information required to be disclosed by the Registrant in this Quarterly Report on Form 10-Q is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and Form 10-Q. These disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by Registrant in the reports that it files or submits under the Securities Exchange Act of 1934 (15 USC § 78a et seq) is accumulated and communicated to Registrant's management, including the principal executive officer and the principal financial officer, as appropriate to allow timely decisions regarding required disclosure. The principal executive officer and the principal financial officer have also concluded, based upon their evaluation, that there are no significant deficiencies or material weaknesses in these disclosure controls and procedures.
- (b) Changes in internal controls. There were no significant changes in the Registrant's internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation.

**INDEPENDENT ACCOUNTANTS' REPORT**

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

We have reviewed the accompanying consolidated condensed statement of financial position of Northrop Grumman Corporation and subsidiaries as of March 31, 2003, and the related consolidated condensed statements of operations, cash flows, and changes in shareholders' equity for the three-month periods ended March 31, 2003 and 2002. These financial statements are the responsibility of the Corporation's management.

We conducted our review in accordance with standards established by the American Institute of Certified Public Accountants. A review of interim financial information consists principally of applying analytical procedures to financial data and of making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with auditing standards generally accepted in the United States of America, 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 review, we are not aware of any material modifications that should be made to such consolidated condensed 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 auditing standards generally accepted in the United States of America, the consolidated statement of financial position of Northrop Grumman Corporation and subsidiaries as of December 31, 2002, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for the year then ended (not presented herein); and in our report dated March 18, 2003, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated condensed statement of financial position as of December 31, 2002 is fairly stated, in all material respects, in relation to the consolidated statement of financial position from which it has been derived.

/s/ DELOITTE & TOUCHE LLP

Deloitte & Touche LLP  
Los Angeles, California  
May 9, 2003

PART II. OTHER INFORMATION

**Item 1. Legal Proceedings**

Various claims and legal proceedings arise in the ordinary course of business and are pending against the company and its properties. Based upon the information available, the company does not believe that the resolution of any of these proceedings will have a material adverse effect upon its operations or financial condition.

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. 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 an operating division or subdivision. Suspension or debarment could have a material adverse effect on the company because of its reliance on government contracts. Based on available information, the company does not believe, but can give no assurance, that any matter resulting from a U.S. Government investigation would have a material adverse effect on its results of operations or financial condition. Matters described below include cases in which the U.S. Government is a party. The company is unable to predict whether or not adverse decisions in these matters would have a material adverse effect on the company's financial conditions.

As previously reported, in October 1999 in U.S. ex rel. Jordan v. Northrop Grumman Corporation, the company was served with a fifth amended complaint. The action was filed by the government in the United States District Court of the Central District of California in May 1995. The complaint alleges that the company violated the civil False Claims Act by knowingly supplying BQM-74C aerial target drones that contained various defective components between 1988 and 1998. The government seeks to recover damages up to approximately \$210 million, plus penalties, under theories of fraud, payment by mistake, unjust enrichment, breach of warranty and breach of contract. Damages awarded pursuant to the False Claims Act may be trebled by the court. The company denies the allegations and intends to vigorously defend this matter. Trial is scheduled to begin on September 9, 2003.

**Other Matters**

The Company has been informed that the SEC has closed the previously disclosed investigation into matters relating to the joint proxy statement and prospectus in connection with the stockholders meeting to approve the proposed merger with Lockheed Martin Corporation and will take no further action in that matter.

Like many other industrial companies in recent years, and as a result of acquisition activities, the company is a defendant in lawsuits alleging personal injury as a result of exposure to asbestos integrated into its premises and certain historical products. The company no longer incorporates asbestos in any currently manufactured products. Many of these claims have been dismissed with no payment, and the remaining resolved claims have involved amounts that were not material either singly or in the aggregate. Based on the information available to the company as of the date of filing of this Report, the company does not believe that disposition of any or all of these matters would have a material adverse effect upon it.

**Item 6. Exhibits and Reports on Form 8-K**

**(a) Exhibits**

- 2.1 Amendment No. 2 dated February 18, 2003 to the Master Purchase Agreement dated November 19, 2002, as amended by Amendment No. 1 dated December 1, 2002, by and among Northrop Grumman Corporation, Northrop Grumman Space & Mission Systems Corp. (formerly known as TRW Inc.), TRW Automotive, Inc. and BCP Acquisition Company L.L.C., filed as an exhibit pursuant to Item 7 of the company's Form 8-K dated and filed March 5, 2003 and incorporated herein by reference.

## NORTHROP GRUMMAN CORPORATION AND SUBSIDIARIES

- \*4.1 Form of Eighth Supplemental Indenture with respect to Indenture dated as of May 1, 1986, dated as of March 27, 2003, among Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.), Northrop Grumman Corporation and JP Morgan Chase Bank (formerly The Chase Manhattan Bank), as successor trustee.
- \*4.2 Form of Guarantee dated as of March 27, 2003, made by Northrop Grumman Corporation, as Guarantor, in favor of JP Morgan Chase Bank (formerly The Chase Manhattan Bank), as trustee, of certain debt securities of Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.).
- \*10.1 First Amendment dated as of November 26, 2002, to the \$2,500,000 Five-Year Revolving Credit Agreement dated as of March 30, 2001, among Northrop Grumman Corporation, Northrop Grumman Systems Corporation and Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), as borrowers, and the lenders and agents specified therein.
- \*15 Letter from independent accountants regarding unaudited interim financial information.
- \*99.1 Additional Exhibit.
- \*99.2 Additional Exhibit.

\* Filed with this Report

### (b) Reports on Form 8-K

A report on Form 8-K/A was dated and filed January 22, 2003, by Northrop Grumman Corporation reporting pursuant to Item 7 certain required pro forma financial information.

A report on Form 8-K was dated and submitted February 3, 2003, by Northrop Grumman Corporation, which furnished pursuant to Item 9 certain investment conference presentation materials.

A report on Form 8-K was dated and submitted February 13, 2003, by Northrop Grumman Corporation, which furnished pursuant to Item 9 certain investor presentation materials.

A report on Form 8-K was dated and filed March 5, 2003, by Northrop Grumman Corporation (i) reporting pursuant to Item 2 the completion of the sale of TRW's automotive business by Northrop Grumman pursuant to the Master Purchase Agreement, dated November 18, 2002 (as amended by Amendment No. 1 dated December 1, 2002 and Amendment No. 2 dated February 18, 2003), by and among Northrop Grumman Corporation, Northrop Grumman Space & Mission Systems Corp. (formerly known as TRW Inc.), TRW Automotive, Inc. and BCP Acquisition Company L.L.C., and (ii) including Amendment No. 2 as an exhibit pursuant to Item 7.

A report on Form 8-K was dated March 21, 2003, and submitted March 24, 2003, by Northrop Grumman Corporation, which furnished pursuant to Item 9 a transmittal letter to the Securities and Exchange Commission and certifications of its Chairman and Chief Executive Officer and Corporate Vice President and Chief Financial Officer in connection with its Annual Report on Form 10-K for the year ended December 31, 2002. Such certifications were filed pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

A report on Form 8-K was dated and submitted April 10, 2003, by Northrop Grumman Corporation furnishing as an exhibit pursuant to Item 9 the First Amendment dated as of November 26, 2002 to the Five-Year Revolving Credit Agreement dated as of March 30, 2001, among Northrop Grumman Corporation, Northrop Grumman Systems Corporation and Litton Industries, Inc. (predecessor-in-interest to Northrop Grumman Systems Corporation), as borrowers, and the lenders and agents specified therein.

A report on Form 8-K was dated and submitted April 29, 2003, by Northrop Grumman Corporation including as an exhibit pursuant to Item 7 and furnishing as an exhibit pursuant to Item 9 information with respect to financial results for the quarter ended March 31, 2003.



**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)

Date: May 14, 2003

By: /s/ SANDRA J. WRIGHT

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Sandra J. Wright  
Corporate Vice President and Controller

Date: May 14, 2003

By: /s/ JOHN H. MULLAN

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John H. Mullan  
Corporate Vice President and Secretary

**CERTIFICATION**

I, Ronald D. Sugar, Chief Executive Officer and President, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Northrop Grumman Corporation (“registrant”);
2. Based on my knowledge, this quarterly 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 quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
  - b) evaluated the effectiveness of the registrant’s disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the “Evaluation Date”); and
  - c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant’s ability to record, process, summarize and report financial data and have identified for the registrant’s auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal controls; and
6. The registrant’s other certifying officer and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 14, 2003

/s/ RONALD D. SUGAR

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Ronald D. Sugar  
Chief Executive Officer and President

**CERTIFICATION**

I, Richard B. Waugh, Jr., Corporate Vice President and Chief Financial Officer, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Northrop Grumman Corporation (“registrant”);
2. Based on my knowledge, this quarterly 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 quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
  - b) evaluated the effectiveness of the registrant’s disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the “Evaluation Date”); and
  - c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent function):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant’s ability to record, process, summarize and report financial data and have identified for the registrant’s auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal controls; and
6. The registrant’s other certifying officer and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 14, 2003

/s/ RICHARD B. WAUGH, JR.

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Richard B. Waugh, Jr.  
Corporate Vice President and Chief Financial Officer

**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS CORP.,**

**NORTHROP GRUMMAN CORPORATION**

**AND**

**JPMORGAN CHASE BANK, as Trustee**

**Eighth Supplemental Indenture**

**Dated as of March 27, 2003**

**Relating to the Guarantee**

**and**

**Certain Other Changes**

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EIGHTH SUPPLEMENTAL INDENTURE (this “**Eighth Supplemental Indenture**”) dated as of March 27, 2003, by and among Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.), an Ohio corporation (the “**Company**”), Northrop Grumman Corporation, a Delaware corporation and the parent of the Company (the “**Guarantor**”), and JPMorgan Chase Bank (formerly The Chase Manhattan Bank), a New York banking corporation, as successor trustee (the “**Trustee**”) under the Indenture referred to below.

WHEREAS, the Company and the predecessor trustee to the Trustee entered into an Indenture dated as of May 1, 1986, as amended and supplemented by the First Supplemental Indenture dated as of August 24, 1989, the Second Supplemental Indenture dated as of June 2, 1999, the Third Supplemental Indenture dated as of June 2, 1999, the Fourth Supplemental Indenture dated as of June 2, 1999, the Fifth Supplemental Indenture dated as of June 2, 1999, the Sixth Supplemental Indenture dated as of June 23, 1999 and the Seventh Supplemental Indenture dated as of June 23, 1999 (as from time to time amended and supplemented, the “**Indenture**”), pursuant to which the Company has issued and from time to time hereafter may issue, debentures, notes, bonds or other evidences of indebtedness (collectively the “**Securities**”);

WHEREAS, pursuant to an Agreement and Plan of Merger dated as of June 30, 2002, on December 11, 2002 Richmond Acquisition Corp., a wholly-owned subsidiary of the Guarantor, was merged with and into the Company, with the Company surviving the merger as a wholly-owned subsidiary of the Guarantor, and thereafter the Company’s name was changed from “TRW Inc.” to “Northrop Grumman Space & Mission Systems Corp.,”

WHEREAS, Section 11.01(a) 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 consent of any holder of Securities (each, a “**Holder**”), the purpose of which is to evidence the succession of another corporation to the Company, or successive successions, and the assumption by the successor corporation of the covenants, agreements and obligations of the Company therein and contained in the Securities pursuant to Article Twelve thereof;

WHEREAS, JP Morgan & Co. previously was merged with and into Chase Manhattan Corp., as a result of which the name of the Trustee was changed from “The Chase Manhattan Bank” to “JPMorgan Chase Bank;”

WHEREAS, Section 11.01(e) 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 evidence and provide for the acceptance of appointment by another corporation as a successor Trustee hereunder with respect to one or more series of Securities;

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 matters or questions arising under this Indenture as shall not adversely affect the interests of the Holders of the Securities;

WHEREAS, the Guarantor and the Company now desire to provide for the full and unconditional guarantee by the Guarantor of the payment obligations of the Company in respect of the Securities (the “**Guarantee**”), each of the Guarantor and the Company having determined that execution of such Guarantee is in the best interests of each of the Guarantor and the Company;

WHEREAS, in connection herewith the Company has determined that this Eighth Supplemental Indenture complies with Section 11.01 of the Indenture and, pursuant to such section, does not require the consent of any Holders;

WHEREAS, the Company has furnished the Trustee with an Officers’ Certificate and an Opinion of Counsel as required by Sections 11.03, 12.04 and 15.05 of the Indenture and Board Resolutions as required by Section 11.01 of the Indenture; and

WHEREAS, all conditions and requirements necessary to make this Eighth Supplemental Indenture a valid instrument that is legally binding on the parties hereto and on the Holders have been satisfied.

NOW, THEREFORE, for and in consideration of the foregoing premises, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities (including any Holder of any coupon appertaining to any such Security) or of any series thereof, as follows:

**ARTICLE ONE**  
**AMENDMENTS TO INDENTURE**

1.1 Amendments to Article One of the Indenture.

(a) Capitalized terms used herein and not defined herein have the meanings ascribed to such terms in the Indenture.

(b) Section 1.01 of the Indenture hereby is supplemented and amended to include the following definitions, in the appropriate alphabetical sequence (and in place of any corresponding definitions in the Indenture), as follows:

“The term ‘Company’ shall mean Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.), an Ohio corporation, and, subject to the provisions of Article Twelve, shall mean its successors and assigns from time to time hereafter.”

“The term ‘Corporate Trust Office of the Trustee,’ or other similar term, shall mean the principal office of the Trustee at which at any particular time its corporate trust business shall be administered, and, so long as JPMorgan Chase Bank shall be Trustee hereunder, shall mean the office in New York, New York of the Corporate Trust Division of the Trustee, which office at the date hereon is located at 4 New York Plaza, 15th Floor, New York, New York 10004, Attention: Institutional Trust Services.”

“The term ‘Guarantee’ means the Guarantee dated as of March 27, 2003 made by the Guarantor in favor of and for the benefit of the Trustee for the Holders whereby the Guarantor guarantees the payment obligations of the Company with respect to any and all of the Securities.”

“The term ‘Guarantor’ shall mean Northrop Grumman Corporation, a Delaware corporation and parent of the Company.”

“The term ‘Trustee’ means JPMorgan Chase Bank and, subject to the provisions of Article Eight, shall also include the successors and assigns of the Trustee hereunder; provided, however, that if at any time there is more than one such person acting as Trustee hereunder, ‘Trustee’ as used with respect to the Securities of any series shall mean only the Trustee with respect to the Securities of that series.”

1.2 Amendments to Article Fifteen of the Indenture. The Indenture hereby is amended and supplemented by deleting the first sentence of Section 15.03 and inserting the following text in its place:

“Any notice, direction, request or demand which by any provision of this Indenture is required or permitted to be given or served by the Trustee or by the Holders to or on the Company may be given or served by being deposited, first-class, postage prepaid, in a post office letter box in the United States (except as otherwise provided in paragraph (d) of Section 7.01) addressed (until another address is filed by the Company with the Trustee) as follows: Northrop Grumman Space & Mission Systems Corp. c/o Northrop Grumman Corporation, 1840 Century Park East, Los Angeles, California 90067. Any notice, direction, request, or demand which by any provision of this Indenture is required or permitted to be given or served by the Trustee, the Company or by the Holders to or on the Guarantor may be given or served by being deposited, first-class, postage prepaid, in a post office letter box in the United States addressed (until another address is filed by the Guarantor with the Trustee) as follows: Northrop Grumman Corporation, 1840 Century Park East, Los Angeles, California 90067, Attention: Corporate Vice President and Secretary.”

1.3 Addition of New Article to the Indenture. The Indenture hereby is amended and supplemented by inserting the following immediately after Article Fifteen thereof:

“ARTICLE SIXTEEN  
GUARANTEE OF PAYMENT OBLIGATIONS OF THE COMPANY

SECTION 16.01. *Agreement to Guarantee Obligations*. Guarantor hereby agrees with each Holder of a Security, and with each Holder of any coupon appertaining to any such Security, and with the Trustee on behalf of each such Holder, to enter into and thereby become bound by the terms and provisions of the Guarantee in the form attached hereto as Exhibit A, a copy of which shall be executed and delivered by the Guarantor concurrently with the execution and delivery hereof.

SECTION 16.02. *Execution and Delivery of Guarantee.*

(a) The Guarantee referred to Section 16.01 hereof shall be executed on behalf of the Guarantor by the manual or facsimile signature of an officer of such Guarantor and delivered to the Trustee. If an officer of a Guarantor whose signature is on such Guarantee no longer holds that office, such Guarantee will be valid nevertheless.

(b) Upon the execution and delivery of the Guarantee in accordance with paragraph (a) of this Section 16.02, the Trustee shall cause such Guarantee (or a copy thereof) to be affixed to each Security; provided, however, that such Guarantee executed and delivered pursuant to paragraph (a) of this Section 16.02 shall be deemed to form a part of each Security whether or not such Guarantee (or a copy thereof) is affixed thereto.”

**ARTICLE TWO**  
**REPRESENTATIONS AND WARRANTIES**

2.1 Organization. Each of the Guarantor and the Company is a corporation or company, as the case may be, duly organized, validly existing and in good standing under the laws of its jurisdiction of organization.

2.2 Authority. Each of the Guarantor and the Company has taken all corporate action required by applicable law, its Certificate or Articles of Incorporation, as the case may be, and its Bylaws or Regulations, as the case may be, or otherwise to authorize the execution and delivery of this Eighth Supplemental Indenture. This Eighth Supplemental Indenture has been duly and validly authorized, executed and delivered by each of the Guarantor and the Company and is the valid and binding obligation of each of the Guarantor and the Company, enforceable against it in accordance with its terms, subject to any applicable bankruptcy, insolvency (including all applicable laws relating to fraudulent transfers), reorganization, moratorium or similar laws now or hereafter in effect relating to creditors’ rights generally or to general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law).

2.3 Absence of Conflicts. The execution, delivery and performance of this Eighth Supplemental Indenture by each of the Guarantor and the Company do not (i) conflict with or breach any provision of its Certificate or Articles of Incorporation, as the case may be, or Bylaws or Regulations, as the case may be, or (ii) violate any order, writ, injunction, decree, judgment, statute, rule, regulation or ruling of any court or governmental authority applicable to it.

**ARTICLE THREE**  
**MISCELLANEOUS**

3.1 This Supplemental Indenture. This Eighth Supplemental Indenture and the Exhibits hereto shall be construed as supplemental to the Indenture and shall form a part of it, and the Indenture is hereby incorporated by reference herein and each is hereby ratified, approved and confirmed.



3.2 GOVERNING LAW. THIS EIGHTH SUPPLEMENTAL INDENTURE SHALL BE GOVERNED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

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

3.4 Severability. In case any one or more of the provisions contained in this Eighth Supplemental Indenture or the Securities shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of the Eighth Supplemental Indenture or the Securities, but this Eighth Supplemental Indenture and the Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

3.5 Recitals. The recitals contained herein shall be taken as the statements of the Company and the Guarantor, and the Trustee assumes no responsibility for their correctness.

3.6 Trustee Makes No Representation. The Trustee makes no representation as to the validity or sufficiency of this Eighth Supplemental Indenture.

3.7 Indenture Ratified. Except to the extent expressly amended hereby, the Indenture and the Securities are in all respects ratified and confirmed, and all the terms, conditions and provisions thereof shall remain in full force and effect. Pursuant to Section 11.03 of the Indenture, this Eighth Supplemental Indenture shall form a part of the Indenture for all purposes, and every Holder of Securities heretofore or hereafter authenticated and delivered shall be bound hereby.

3.8 Notices. Any request, demand, authorization, direction, notice, consent, waiver or other Act of Holders or other document provided or permitted by this Eighth Supplemental Indenture shall be made in accordance with Section 15.03 of the Indenture, as amended and supplemented hereby.

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Eighth Supplemental Indenture to be duly executed as of the date first above written.

NORTHROP GRUMMAN SPACE & MISSION SYSTEMS  
CORP.

by \_\_\_\_\_

Name:  
Title:

JPMORGAN CHASE BANK  
as Trustee

by \_\_\_\_\_

Name:  
Title:

NORTHROP GRUMMAN CORPORATION  
as Guarantor

by \_\_\_\_\_

Name:  
Title:

**GUARANTEE**

GUARANTEE dated as of March 27, 2003 (this “**Guarantee**”) made by Northrop Grumman Corporation, a Delaware corporation (“**Guarantor**”), in favor of and for the benefit of JPMorgan Chase Bank (formerly The Chase Manhattan Bank), as trustee (the “**Trustee**”) for the Holders (as such term is defined in the Indenture referred to below) of the debt securities (the “**Notes**”) specified on Schedule A attached hereto, as amended from time to time by the Company, of Northrop Grumman Space & Mission Systems Corp. (formerly TRW Inc.), an Ohio corporation (the “**Company**”). The Notes and any other debt securities previously issued and from time to time hereafter issued by the Company under the Indenture collectively are referred to as the “**Securities.**”

WHEREAS, the Company entered into an Indenture dated as of May 1, 1986 between the Company and the predecessor trustee to the Trustee, as supplemented by the First Supplemental Indenture dated August 24, 1989, the Second Supplemental Indenture dated June 2, 1999, the Third Supplemental Indenture dated June 2, 1999, the Fourth Supplemental Indenture dated June 2, 1999, the Fifth Supplemental Indenture dated June 2, 1999, the Sixth Supplemental Indenture dated June 23, 1999 and the Seventh Supplemental Indenture dated June 23, 1999 (as so supplemented, and as further amended, modified and supplemented from time to time with respect to the Securities, the “**Indenture**”);

WHEREAS, to date the Company has offered and sold in excess of \$4 billion aggregate principal amount of Securities under the Indenture, of which an aggregate of \$4,081,390,000 principal amount is outstanding as of the date hereof;

WHEREAS, the Company from time to time hereafter may offer and sell additional Securities pursuant to the Indenture;

WHEREAS, as the result of the merger of a wholly owned subsidiary of the Guarantor with and into the Company on December 11, 2002, the Company currently is a wholly owned subsidiary of the Guarantor;

WHEREAS, the Company and its affiliates (including, without limitation, the Guarantor) derive, and expect to continue to derive, substantial direct and indirect benefit from the transactions financed by the issuance and sale of the Notes and any other Securities that hereafter may be issued;

WHEREAS, the Guarantor desires to guarantee the obligations of the Company with respect to the Securities, on the terms and subject to the conditions set forth herein; and

WHEREAS, capitalized terms used but not otherwise defined herein shall have the meanings set forth in the Indenture.

NOW, THEREFORE, in consideration of the foregoing premises, and for other good and valuable consideration, the receipt and sufficiency of which hereby are acknowledged, the Guarantor hereby agrees as follows:

SECTION 1. Guarantee; Limitation of Liability.

(a) The Guarantor irrevocably and unconditionally guarantees as a primary obligor and not merely as a surety, to the Trustee and to each Holder of a Security authenticated and delivered by the Trustee the due and punctual payment of the principal of and any premium and interest on any and all Securities (including, in case of default, interest on overdue principal and interest and in any event regardless of whether such Security is listed on Schedule A attached hereto) and including any additional interest required to be paid according to the terms of the Securities or the Indenture, when due, whether at stated maturity, upon redemption or repayment, upon declaration of acceleration or otherwise according to the terms of the Securities or the Indenture and the due and punctual performance of all other payment obligations of the Company to such Holder or the Trustee, all in accordance with the terms of the Securities and the Indenture (such payment obligations being the “**Guaranteed Obligations**”), and hereby agrees to pay any and all expenses (including reasonable counsel fees and expenses) incurred by such Holder or the Trustee in enforcing any rights under this Guarantee. Without limiting the generality of the foregoing, the Guarantor’s liability shall extend to all amounts that constitute part of the Guaranteed Obligations and would be owed by the Company to such Holder or the Trustee under the Securities or the Indenture but for the fact that they are unenforceable or not allowable due to the existence of a bankruptcy, reorganization or similar proceeding involving the Company because it is the intention of the Guarantor, the Trustee and the Holders that the Guaranteed Obligations should be determined without regard to any rule of law or order that might relieve the Company of any portion of the Guaranteed Obligations.

(b) Notwithstanding anything to the contrary in this Agreement, the Guarantor, and the Trustee and each Holder by accepting the benefits of this Guarantee, each hereby confirms that it is its respective intention that the guarantee by the Guarantor pursuant to this Guarantee, together with each other guarantee by such Guarantor of Participating Indebtedness (as defined below), shall not constitute a fraudulent transfer or conveyance for purposes of any applicable provisions of Title 11 of the United States Code, the Uniform Fraudulent Conveyance Act, the Uniform Fraudulent Transfer Act, or any similar federal or state law. To effectuate the foregoing intention, the obligations of the Guarantor under this Guarantee and each other guarantee of Participating Indebtedness shall be limited, collectively, to such maximum amount as will, after giving effect to such maximum amount and all other liabilities of such Guarantor, contingent or otherwise, that are relevant under such laws, and after giving effect to any rights to subrogation, reimbursement, indemnification or contribution of such Guarantor pursuant to applicable law or pursuant to any agreement, result in the obligations of such Guarantor in respect of such maximum amount not constituting a fraudulent transfer or conveyance. The Trustee and each Holder by accepting the benefits of this Guarantee hereby confirms its intention that, in the event of a bankruptcy, reorganization or other similar proceeding of the Guarantor in which concurrent claims are made upon such Guarantor hereunder and under any other guarantee of Participating Indebtedness, to the extent such claims will not be fully satisfied, each such claimant with a valid claim against the Guarantor shall be entitled to a ratable share of all payments by such Guarantor in respect of such concurrent claims. For purposes of this Section 1(b), “**Participating Indebtedness**” means any Indebtedness (as defined below) of the Company that is guaranteed by such Guarantor pursuant to a guarantee (i) the incurrence of which is not prohibited by the terms of the Indenture or any agreement governing any other Participating Indebtedness then outstanding (or, if so prohibited

by the Indenture or any such agreement, is permitted as a result of a consent or waiver thereunder) and (ii) that contains a limitation of liability and confirmation of intention regarding ratability of payments on substantially the terms set forth in this Section 1(b). “**Indebtedness**” means any indebtedness, whether or not contingent, in respect of borrowed money or evidenced by bonds, notes, debentures or similar instruments or letters of credit and, to the extent not otherwise included, the guarantee by the Company of any indebtedness of any other Person.

(c) Notwithstanding anything to the contrary contained herein, the liability of the Company in respect of the Securities guaranteed by the Guarantor hereunder shall not be limited by the terms of Section 1(b).

**SECTION 2. Guarantee Absolute.** The Guarantor guarantees that the Guaranteed Obligations will be paid or performed strictly in accordance with the terms of the Securities and the Indenture, regardless of any law, regulation or order now or hereafter in effect in any jurisdiction affecting any of such terms or the rights of any Holder with respect thereto. The obligations of the Guarantor under this Guarantee are independent of the Guaranteed Obligations, and a separate action or actions may be brought and prosecuted against such Guarantor to enforce this Guarantee, irrespective of whether any action is brought against the Company or whether the Company is joined in any such action or actions. The liability of the Guarantor under this Guarantee shall be absolute and unconditional irrespective of:

(a) any lack of validity or enforceability of the Securities or the Indenture or any agreement or instrument relating to the Securities or the Indenture or any failure to enforce the provisions thereof;

(b) any renewal, extension or other change in the time, manner or place of payment or performance of, or in any other term of, all or any of the Guaranteed Obligations, or any other amendment or waiver of or any consent to the departure from the Securities or the Indenture;

(c) any settlement, compromise, release or discharge, or acceptance or refusal of any offer of performance with respect to, or any substitution for, the Guaranteed Obligations or any agreement related thereto and/or any subordination of the payment of the same to the payment of any other obligations;

(d) any taking, exchange, release or non-perfection of any mortgage, lien, pledge, claim, charge, security interest or encumbrance of any kind, whether or not filed, recorded or otherwise perfected under applicable law (each a “**Lien**”), in any real or personal property to secure payment or performance of any or all of the Guaranteed Obligations (whether now or hereafter granted, the “**Collateral**”), or any taking, release, amendment, waiver of, or consent to the departure from, any other guarantee, for all or any of the Guaranteed Obligations;

(e) any manner of application of the Collateral, or proceeds thereof, to all or any of the Guaranteed Obligations, or any manner of sale or other disposition of any Collateral or any other assets of the Company or any Subsidiary;

(f) any change, restructuring or termination of the corporate structure or existence of the Company or any Subsidiary; or

(g) any other circumstance (including, without limitation, any statute of limitations) that might otherwise constitute a defense available to, or a discharge of, the Company or the Guarantor of the Guaranteed Obligations.

This Guarantee shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any of the Guaranteed Obligations is rescinded or must otherwise be returned by any Holder or the Trustee upon the insolvency, bankruptcy or reorganization of the Company or for any other reason, all as though such payment had not been made. The Guarantor further agrees, to the fullest extent that it may lawfully do so, that, as between such Guarantor on the one hand, and the Holders and the Trustee, on the other hand, (i) the maturity of the obligations guaranteed hereby may be accelerated as provided in Article Seven of the Indenture for the purposes of this Guarantee, notwithstanding any stay, injunction or other prohibition extant under any applicable bankruptcy law preventing such acceleration in respect of the obligations guaranteed hereby and (ii) in the event of any declarations of acceleration of such obligations as provided in Article Seven of the Indenture, such obligations (whether or not due and payable) shall forthwith become due and payable by the Guarantor for the purpose of this Guarantee. In addition, without limiting the foregoing provision, upon effectiveness of an acceleration under Article Seven of the Indenture, the Trustee shall promptly make a demand for payment on the Securities under this Guarantee as provided for hereunder and not discharged.

SECTION 3. Waivers.

(a) The Guarantor hereby waives:

- (i) promptness, diligence, presentment, notice of acceptance and any other notice with respect to any of the Guaranteed Obligations and this Guarantee
- (ii) any requirement to file any claims with a court in the event of merger or bankruptcy of the Company or any guarantor of the Guaranteed Obligations;
- (iii) any right to require a proceeding first against the Company or any other guarantor of the Guaranteed Obligations;
- (iv) the benefit of discussion or protest or notice with respect to any such Securities or the Indebtedness evidenced thereby;
- (v) any requirement that any Holder or the Trustee protect, secure, perfect or insure any Lien or any Collateral subject thereto or exhaust any right or take any action against the Company or any other Person or any Collateral;
- (vi) any defense arising by reason of the incapacity, lack of authority or any disability or other defense of the Company;
- (vii) any defense based upon any statute or rule of law which provides that the obligation of a surety must be neither larger in amount nor in any other respects more burdensome than that of the principal;

- (viii) any defense based upon any errors or omissions of the Trustee or the Holders' administration of the Guaranteed Obligations; and
- (ix) any rights to set-offs, recoupments and counterclaims.

(b) The Guarantor hereby irrevocably waives all right to trial by jury in any action, proceeding or counterclaim (whether based on contract, tort or otherwise) arising out of or relating to any of the Securities or the Indenture, the transactions contemplated thereby or the actions of the Trustee in the negotiation, administration, performance or enforcement thereof.

SECTION 4. Financial Condition of the Company. The Guarantor represents and warrants that it presently is informed of the financial condition of the Company and of all other circumstances which a diligent inquiry would reveal and which bear upon the risk of nonpayment of the Guaranteed Obligations. The Guarantor hereby covenants that it will continue to keep itself reasonably informed of the Company's financial condition and of all other circumstances which bear upon the risk of nonpayment and hereby waives any duty on the part of the Trustee or any Holder to disclose or discuss with such Guarantor its assessment, or such Guarantor's assessment, of the financial condition of the Company.

SECTION 5. Subrogation. The Guarantor will not exercise any rights that it may acquire by way of subrogation under this Guarantee, by any payment made hereunder or otherwise, until all the Guaranteed Obligations shall have been indefeasibly paid in full in cash. If any amount shall be paid to the Guarantor on account of any such subrogation rights at any time when all the Guaranteed Obligations shall not have been paid in full, such amount shall be held in trust for the benefit of the Holders and the Trustee and shall forthwith be paid to the Trustee, on behalf of the Holders, to be credited and applied to the Guaranteed Obligations, whether matured or unmatured.

SECTION 6. Amendments, Etc. No amendment or waiver of any provision of this Guarantee and no consent to any departure by the Guarantor therefrom shall in any event be effective unless the same shall be in writing and signed by the Trustee, on behalf of the Holders, and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given. No such amendment or waiver shall require the consent or approval of any Holder, other than amendments or waivers which materially and adversely affect the rights of the Holders to payment of the Guaranteed Obligations by the Guarantor as provided herein, which shall require the consent of the Holders of a majority of the then outstanding principal amount of the Securities.

SECTION 7. Notices, Etc. All notices and other communications provided for hereunder shall be in writing and delivered in person or mailed by first-class mail, if to the Guarantor, addressed to it at 1840 Century Park East, Los Angeles, California 90067, Attention: Vice President and Secretary, if to the Company, addressed to it c/o the Guarantor at 1840 Century Park East, Los Angeles, California 90067, Attention: Vice President and Secretary, if to any Holder, addressed to it c/o the Trustee at 4 New York Plaza, 15th Floor, New York, New York 10004, Attention: Institutional Trust Services, and if to the Trustee, addressed to it at 4 New York Plaza, 15th Floor, New York, New York 10004, Attention: Institutional Trust Services, or as to any party at such other address as shall be designated by such party in a written

notice to each other party. All such notices and other communications shall, when mailed by first class mail, be effective when deposited in the first class mails.

SECTION 8. No Waiver; Remedies. No failure on the part of any Holder or the Trustee to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

SECTION 9. Continuing Guarantee. This Guarantee is a continuing guarantee and shall (a) remain in full force and effect until the earlier of (i) the payment in full (including deemed payment resulting in defeasance and discharge of the Company pursuant to Section 13.02 of the Indenture) of the Guaranteed Obligations and all other amounts payable under this Guarantee and (ii) the termination of this Guarantee pursuant to Section 10 of this Guarantee, (b) subject to the terms hereof, be binding upon the Guarantor, its respective successors and assigns and (c) inure to the benefit of and be enforceable by each Holder and the Trustee and their respective successors, transferees and permitted assigns.

SECTION 10. Termination of the Guarantee. This Guarantee automatically shall terminate and the Guarantor thereafter shall be relieved of all obligations and covenants under the Indenture and this Guarantee if the Guarantor consolidates with or merges into another entity, or conveys, transfers or leases its properties and assets substantially as an entirety to any Person in a transaction (or series of related transactions) in which:

(a) any successor entity is a corporation, partnership or trust organized and validly existing under the laws of the United States or any state thereof;

(b) the successor entity assumes the Guarantor's obligations under this Guarantee;

(c) after giving effect to the transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, has occurred and is continuing; and

(d) the Guarantor delivers to the Trustee certificates and opinions to the effect that the transaction complies with, or is not prohibited by, the Indenture.

Upon any such consolidation or merger or conveyance, transfer or lease of the properties and assets of the Guarantor as an entirety to any Person, the successor Person will succeed to, and be substituted for, such Guarantor under the Indenture and this Guarantee.

SECTION 11. Governing Law. This Guarantee shall be governed by, and construed in accordance with, the law of the State of New York.

SECTION 12. Counterparts. This Guarantee may be executed by facsimile signature and in two or more counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.



IN WITNESS WHEREOF, the Guarantor has caused this Guarantee to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

**NORTHROP GRUMMAN CORPORATION**

By: \_\_\_\_\_

Name:  
Title

By: \_\_\_\_\_

Name:  
Title:

## Schedule A

## Northrop Grumman Space &amp; Mission Systems Debt Securities

CUSIP / ISIN	Principal	Rate	Maturity	Indenture	Description
87265 C AV 2	\$ 5,530,000.00	6.500%	17-Mar-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #1
87265 C AW 0	3,000,000.00	6.570%	17-Mar-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #2
87265 C AX 8	15,000,000.00	6.600%	18-Mar-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #3
87265 C AZ 3	12,000,000.00	6.600%	31-Mar-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #5
87265 C BA 7	2,000,000.00	6.530%	13-May-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #6
87265 C BC 3	5,000,000.00	6.540%	19-May-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #8
87265 C BE 9	10,000,000.00	6.580%	23-Jun-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #10
87265 C BF 6	10,000,000.00	6.550%	23-Jun-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #11
87265 C BG 4	4,000,000.00	6.390%	07-Jul-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #12
87265 C BH 2	16,000,000.00	6.380%	07-Jul-03	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #13
87265 C BM 1	15,000,000.00	6.940%	30-Mar-04	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #17
87265 C BN 9	10,000,000.00	7.000%	31-Mar-04	May 1, 1986—First Supplement of 8/24/1989	Series B MTN #18
872649 BF 4*	700,000,000.00	6.625%	01-Jun-04	Third Supplement of 6/2/1999	144A
872649 AN 8	200,000,000.00	6.050%	15-Jan-05	May 1, 1986—First Supplement of 8/24/1989	Series C MTN
872649 BL 1	500,000,000.00	7.625%	15-Mar-06	May 1, 1986—First Supplement of 8/24/1989	Shelf Takedown
872649 BK 3	500,000,000.00	8.750%	15-May-06	May 1, 1986—First Supplement of 8/24/1989	Shelf Takedown
87265 C BP 4	50,000,000.00	7.370%	18-Apr-07	May 1, 1986—First Supplement of 8/24/1989	Series C MTN #1
87265 C BQ 2	30,000,000.00	6.730%	11-Jul-07	May 1, 1986—First Supplement of 8/24/1989	Series C MTN #2
87265 C BU 3	100,000,000.00	6.300%	15-May-08	May 1, 1986—First Supplement of 8/24/1989	Series D MTN #4
87265 C BR 0	45,000,000.00	6.380%	19-May-08	May 1, 1986—First Supplement of 8/24/1989	Series D MTN #1
87265 C BT 6	8,000,000.00	6.310%	27-May-08	May 1, 1986—First Supplement of 8/24/1989	Series D MTN #3
87265 C BS 8	6,000,000.00	6.320%	27-May-08	May 1, 1986—First Supplement of 8/24/1989	Series D MTN #2
872649 BG 2	750,000,000.00	7.125%	01-Jun-09	Fourth Supplement of 6/2/1999	144A
872649 AP 3	150,000,000.00	6.250%	15-Jan-10	May 1, 1986—First Supplement of 8/24/1989	Series C MTN
87265 C AD 2	30,000,000.00	9.250%	30-Dec-11	May 1, 1986—First Supplement of 8/24/1989	Series A MTN #4
87265 C AC 4	5,000,000.00	9.250%	12-Jan-20	May 1, 1986—First Supplement of 8/24/1989	Series A MTN #3
87265 C AH 3	99,860,000.00	9.350%	04-Jun-20	May 1, 1986—First Supplement of 8/24/1989	Series A MTN #9
87265 C AU 4	100,000,000.00	9.375%	15-Apr-21	May 1, 1986—First Supplement of 8/24/1989	Series A MTN #21
872649 AQ 1	150,000,000.00	6.650%	15-Jan-28	May 1, 1986—First Supplement of 8/24/1989	Series C MTN
872649 BH 0	550,000,000.00	7.750%	01-Jun-29	Fifth Supplement of 6/2/1999	144A

FIRST AMENDMENT dated as of November 26, 2002 (this "Amendment"), to the Five-Year Revolving Credit Agreement dated as of March 30, 2001 (the "Credit Agreement"), among NORTHROP GRUMMAN CORPORATION, a Delaware corporation formerly known as NNG, Inc. (the "Company"); NORTHROP GRUMMAN SYSTEMS CORPORATION, a Delaware corporation formerly known as Northrop Grumman Corporation ("Northrop Operating"); LITTON INDUSTRIES, INC., a Delaware corporation ("Litton Operating" and, together with the Company and Northrop Operating, the "Borrowers"); the LENDERS (as defined in Article 1 of the Credit Agreement), JPMORGAN CHASE BANK and CREDIT SUISSE FIRST BOSTON, as Co-Administrative Agents, JPMORGAN CHASE BANK, as Payment Agent, SALOMON SMITH BARNEY INC., as Syndication Agent, and THE BANK OF NOVA SCOTIA and DEUTSCHE BANC SECURITIES INC. (formerly known as Deutsche Banc Alex. Brown Inc.), as Co-Documentation Agents.

A. Pursuant to the Credit Agreement, the Lenders have extended, and have agreed to extend, credit to the Borrowers.

B. The Borrowers have informed the Lenders that the Company intends to acquire all of the outstanding equity interest of TRW Inc., an Ohio corporation ("TRW"), pursuant to the Agreement and Plan of Merger (the "TRW Merger Agreement") dated as of June 30, 2002, by and among TRW, the Company and Richmond Acquisition Corp., a newly formed Ohio corporation and wholly owned subsidiary of the Company ("Richmond Acquisition"). Pursuant to the TRW Merger Agreement, Richmond Acquisition shall be merged with and into TRW and TRW will become a wholly owned subsidiary of the Company (the "TRW Acquisition").

C. The Borrowers have further informed the Lenders that, following the TRW Acquisition, the Company intends to cause TRW to sell, spin off to the shareholders of the Company or otherwise transfer or dispose of all or a portion of TRW automotive business (any such transfer or disposition being called the "TRW Automotive Business Disposition").

D. In connection with the foregoing, the Borrowers have requested that the Lenders agree to amend certain provisions of the Credit Agreement as provided herein. The Lenders whose signatures appear below, constituting the Required Lenders, are willing, on the terms and subject to the conditions set forth herein, so to amend the Credit Agreement.

E. Capitalized terms used but not defined herein shall have the meanings assigned to them in the Credit Agreement as amended hereby.

Accordingly, in consideration of the mutual agreements herein contained and other good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, the parties hereto agree as follows:

SECTION 1. Amendments. (a) Section 1.01 of the Credit Agreement is hereby amended by:

(i) inserting in the appropriate alphabetical order the following new definitions:

"Amendment No. 1" means Amendment No. 1 and Agreement dated as of November 26, 2002, to this Agreement.

"JPMorgan" means JPMorgan Chase Bank and its successors.

"Subsidiary Guarantee Agreement" means a Subsidiary Guarantee Agreement substantially in the form of Exhibit A to Amendment No. 1, between a Subsidiary and the Co-Administrative Agents, acting on behalf of the Lenders.

"TRW" means TRW Inc., an Ohio corporation.

"TRW Automotive Business Disposition" shall mean any sale, spin-off to the shareholders of the Company or other transfer or disposition of all or a portion of TRW's automotive business in which the consideration received by the Company and its Subsidiaries (other than Subsidiaries that are part of TRW's automotive business) is not less than \$2,000,000,000. For purposes of the foregoing, (a) consideration received by the Company and its Subsidiaries will be deemed to include, without duplication, the amount of any cash consideration received, the fair market value at the closing of such disposition of any non-cash consideration received and the principal amount of any Indebtedness of the Company or TRW that is (i) assumed by one or more of the entities disposed of, (ii) assumed by the purchaser of all or a portion of TRW's automotive business or (iii) refinanced with the proceeds of Indebtedness issued by one or more of the entities disposed of; provided, in the case of Indebtedness referred to in the foregoing clauses (i) and (ii), that, after giving effect to such disposition, neither the Company nor any of its Subsidiaries shall remain directly or contingently liable for, and none of the respective assets of such persons will be subject to any Lien securing, the payment of such Indebtedness, and (b) consideration received by the Company and its Subsidiaries will not be deemed to include any interest in TRW's automotive business that is retained by the Company or any of its Subsidiaries in connection with the TRW Automotive Business Disposition.

(ii) deleting the definition of "Chase".

(b) The definition of the term "Loan Documents" set forth in Section 1.01 of the Credit Agreement is hereby amended and restated in its entirety to read as follows:

"Loan Documents" shall mean this Agreement, each promissory note, if any, delivered pursuant to this Agreement, and each Subsidiary Guarantee Agreement, as such documents may be amended, modified, supplemented or restated from time to time.

(c) Section 1.05 of the Credit Agreement is hereby amended and restated in its entirety to read as follows:

SECTION 1.05. Certain Financial Covenant Calculations. (a) For purposes of determining the Funded Debt to Consolidated EBITDA Ratio and the Consolidated Fixed Charge Coverage Ratio for the four-quarter periods ending at the first three fiscal quarter ends of the Company following the closing of the TRW Acquisition (each such four-quarter period being called a "Designated Period"):

(i) Consolidated EBITDA and Capital Expenditures shall be determined on a pro forma basis combining (A) the results of the Company and its consolidated subsidiaries (other than TRW and its subsidiaries) for such Designated Period and (B) the segment results reported by TRW (or, following the TRW Acquisition, the Company) for TRW's automotive business, space and electronics business and systems business, including any such business that is accounted for as a discontinued operation (but only, in the case of each such business of

TRW, to the extent that such business continues to be wholly owned by TRW at the end of such Designated Period); and

(ii) Interest Expense shall be determined on a pro forma basis combining (A) the results of the Company and its consolidated subsidiaries (including the results of TRW and its subsidiaries for fiscal quarters ending after the closing of the TRW Acquisition, but not for fiscal quarters ended prior to such closing) and (B) for each fiscal quarter ended prior to the closing of the TRW Acquisition, an amount equal to (1) 7% of the Funded Debt of TRW and its subsidiaries at the end of such fiscal quarter multiplied by (2) a fraction of which the numerator is the number of days in such fiscal quarter and the denominator is 365.

The Company agrees that the financial statements delivered by it pursuant to Section 5.01 for each of the first three fiscal quarters ending after the closing of the TRW Acquisition will include or be accompanied by consolidating and segment information sufficient to permit the computations required by the foregoing paragraphs (i) and (ii).

(b) Without limiting the foregoing (but subject to the final parenthetical in paragraph (a)(i) above), for purposes of all financial computations under Sections 6.08, 6.09 and 6.10 of this Agreement following the closing of the TRW Acquisition, balance sheet and income statement items that would otherwise be excluded from the Company's consolidated balances and results because they relate to discontinued operations of TRW and its subsidiaries will be included in such balances and results as if they related to continuing operations of TRW and such subsidiaries.

(d) Section 6.02 of the Credit Agreement is hereby amended by:

(i) replacing the proviso in paragraph (d) thereof with the following:

"provided that the aggregate fair market value of all assets sold, transferred or otherwise disposed of in reliance upon this clause (d) after March 30, 2001, shall not exceed an amount equal to 15% of the consolidated assets of the Company as of September 30, 2002;"

(ii) deleting the word "and" at the end of paragraph (c) thereof, inserting the word "and" at the end of paragraph (d) thereof and inserting the following new paragraph (e):

"(e) the TRW Automotive Business Disposition;"

(e) The first paragraph of Section 6.04(d) of the Credit Agreement is hereby amended to read as follows:

"(d) the Company or any of the Subsidiaries may (i) acquire the business of, or all or any significant part of the Property of, or all or any significant part of the capital stock of, or be a party to any acquisition of, any Person engaged in the same line of business as the Company and its Subsidiaries, taken as a whole, or a related line of business (whether directly or through the merger of a Wholly-Owned Subsidiary with that Person) and (ii) complete the TRW Acquisition, subject, in each case, to the following:"

(e) Section 6.05 of the Credit Agreement is hereby amended by deleting the word "and" at the end of paragraph (f), by relettering paragraph (g) as paragraph (h) and by inserting after paragraph (f) the following new paragraph (g):

"(g) Liens on assets of TRW and its subsidiaries existing at the time of the TRW Acquisition and not created in contemplation of such Acquisition, as set forth on the attached Schedule 6.05(g); and"

(f) Section 6.06(g) of the Credit Agreement is hereby amended by changing the percentages "5%" and "2%" to "7%" and "3%", respectively.

(g) Section 6.07(a)(xiii) of the Credit Agreement is hereby amended and restated in its entirety to read as follows:

"(xiii) additional Indebtedness of the Company and the Subsidiaries (including Capital Lease Obligations and other Indebtedness secured by Liens permitted under clauses (e) and (f) of Section 6.05 hereof) in an aggregate amount at any one time outstanding not exceeding \$750,000,000."

(h) Section 6.07(b) of the Credit Agreement is hereby amended and restated in its entirety to read as follows:

"(b) The Borrowers will not permit the Indebtedness of all of the Subsidiaries that are not Borrowers (other than Indebtedness (a) owing to the Company or another Subsidiary and (b) of any Subsidiary that shall have executed and delivered to the Payment Agent a Subsidiary Guarantee Agreement together with evidence satisfactory to the Payment Agent of the power and authority of such Subsidiary to enter into such Agreement) to exceed \$425,000,000 in the aggregate at any one time outstanding."

(i) Section 6.10 of the Credit Agreement is hereby amended and restated in its entirety to read as follows:

SECTION 6.10. Fixed Charge Coverage Ratio. The Company will not permit the Fixed Charge Coverage Ratio as of any Fiscal Date to be less than 1.25x until the earlier of (x) the completion of the TRW Automotive Business Disposition and (y) December 30, 2003. At any time thereafter, or in the event that the TRW Acquisition shall not have been consummated, the Company will not permit the Fixed Charge Coverage Ratio as of any Fiscal Date in any period set forth below to be less than the ratio set forth below opposite such period:

Fiscal Date -----	Ratio -----
December 31, 2002 - September 30, 2003	1.75x
December 31, 2003 - September 30, 2004	2.00x
December 31, 2004 and each Fiscal Date	2.25x

(j) The following new Section 5.08 is inserted at the end of Article V of the Credit Agreement:

SECTION 5.08. Completion of TRW Automotive Business Disposition. In the event the TRW Acquisition shall be completed, the Company will cause the TRW Automotive Business Disposition to be completed not later than December 31, 2003.

(k) Clause (d) of Article VII of the Credit Agreement is amended by inserting "5.08," immediately prior to "Section 10.14" therein.

(l) References to "Chase" in the Credit Agreement shall be deleted and "JPMorgan" substituted therefor.

(m) Schedule 6.05(g) hereto is substituted for the existing Schedule 6.05(g) to the Credit Agreement.

(n) The Lenders agree, notwithstanding any provision to the contrary in the Credit Agreement, that Litton Operating may be merged with and into Northrop Operating in a transaction in which no Person other than the Company receives any consideration, and that, from and after the effectiveness of such merger, all references in the Credit Agreement to Litton Operating shall be deemed to be references to Northrop Operating.

SECTION 2. Representations and Warranties. To induce the Lenders to enter into this Amendment, the Borrowers represent and warrant to such parties that (a) the representations and warranties set forth in Article III of the Credit Agreement are true and correct in all material respects on and as of the date hereof (and will be true and correct after giving effect to the TRW Acquisition), except to the extent such representations and warranties expressly relate to an earlier date; and (b) no Default or Event of Default has occurred and is continuing (or will have occurred and be continuing after giving effect to the TRW Acquisition).

SECTION 3. Amendment Fee. The Company agrees to pay in immediately available funds to each Lender that executes and delivers to the Payment Agent (or its counsel) a copy of this Amendment at or prior to 5:00 p.m., New York City time, on November 26, 2002, an amendment fee (the "Amendment Fee") in an amount equal to 0.10% of the amount of such Lender's Revolving Commitment (whether used or unused) as of the date hereof; such Amendment Fee will be payable on November 27, 2002. Notwithstanding the foregoing, the Amendment Fee shall not be payable unless this Amendment shall have been executed and delivered by the Required Lenders. Once paid, the Amendment Fee shall not be refundable.

SECTION 4. Conditions to Effectiveness. The amendments provided for in Section 1 shall become effective on the date (the "Amendment Effective Date") on which the following conditions are satisfied; provided that the effectiveness of the amendments set forth in paragraphs (a) (other than the provisions of paragraph (a)(i) adding definitions of TRW and TRW Automotive Business Disposition), (b), (d)(i), (h), (l) and (n) of Section 1 will be subject only to the satisfaction of the condition set forth in paragraph (a) below:

(a) the Payment Agent shall have received counterparts of this Amendment that, when taken together, bear the signatures of the Borrowers and the Required Lenders;

(b) the TRW Acquisition shall have been or shall on the Amendment Effective Date be consummated on substantially the terms set forth in the TRW Merger Agreement as in effect on the date hereof;

(c) the existing Indebtedness and all credit and similar agreements of TRW (other than the Indebtedness and agreements listed on Schedule 1) shall have been or shall on the Amendment Effective Date be repaid and terminated, and all Liens securing such Indebtedness (other than the Liens listed on Schedule 6.05(g) hereto) shall have been or shall on the Amendment Effective Date be released, and the Payment Agent shall have received such evidence as it shall have reasonably requested as to the satisfaction of such condition;

(d) the Company shall have delivered to the Payment Agent with respect to the TRW Acquisition a certificate of a senior accounting or financial officer satisfying the requirements of Section 6.04(d) of the Credit Agreement and confirming the accuracy as of the Amendment Effective Date of the representations set forth in Section 2; and

(e) TRW shall have executed and delivered to the Payment Agent a Subsidiary Guarantee Agreement together with evidence satisfactory to the Payment Agent of the power and authority of TRW to enter into such Agreement.

Notwithstanding the foregoing, if the Amendment Effective Date shall not have occurred by January 31, 2003, then the amendments provided for in Section 1 shall terminate and be of no further force or effect.

SECTION 5. Effect of Amendment. Except as expressly set forth herein, this Amendment shall not by implication or otherwise limit, impair, constitute a waiver of, or otherwise affect the rights and remedies of the Lenders, the Co-Administrative Agents, the Syndication Agent or the Co-Documentation Agents under the Credit Agreement or any other Loan Document, and shall not alter, modify, amend or in any way affect any of the terms, conditions, obligations, covenants or agreements contained in the Credit Agreement or any other Loan Document, all of which are ratified and affirmed in all respects and shall continue in full force and effect. Nothing herein shall be deemed to entitle any Loan Party to a consent to, or a waiver, amendment, modification or other change of, any of the terms, conditions, obligations, covenants or agreements contained in the Credit Agreement or any other Loan Document in similar or different circumstances. This Amendment shall apply and be effective only with respect to the provisions of the Credit Agreement specifically referred to herein. After the date hereof, any reference to the Credit Agreement shall mean the Credit Agreement, as modified hereby. This Amendment shall constitute a "Loan Document" for all purposes of the Credit Agreement and the other Loan Documents.

SECTION 6. Counterparts. This Amendment may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts together shall constitute but one and the same contract. Delivery of an executed counterpart of a signature page of this Amendment by facsimile transmission shall be as effective as delivery of a manually executed counterpart hereof.

SECTION 7. Applicable Law. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

SECTION 8. Headings. The headings of this Amendment are for purposes of reference only and shall not limit or otherwise affect the meaning hereof.

SECTION 9. Expenses. The Borrower agrees to reimburse the Payment Agent for all out-of-pocket expenses in connection with this Amendment, including the reasonable fees, charges and disbursements of Cravath, Swaine & Moore, counsel for the Co-Administrative Agents.



IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed by their duly authorized officers, all as of the date and year first above written.

NORTHROP GRUMMAN CORPORATION,

by: -----  
Name:  
Title:

NORTHROP GRUMMAN SYSTEMS CORPORATION,

by: -----  
Name:  
Title:

LITTON INDUSTRIES, INC.,

by: -----  
Name:  
Title:

JPMORGAN CHASE BANK,  
individually and as Co-Administrative Agent  
and Payment Agent,

by: -----  
Name:  
Title:

CREDIT SUISSE FIRST BOSTON,  
individually and as Co-Administrative Agent,

by: -----  
Name:  
Title:

by: -----  
Name:  
Title:

May 9, 2003

Northrop Grumman Corporation  
1840 Century Park East  
Los Angeles, California 90067

We have made a review, in accordance with standards established by the American Institute of Certified Public Accountants, of the unaudited interim financial information of Northrop Grumman Corporation and subsidiaries for the periods ended March 31, 2003 and 2002, as indicated in our report dated May 9, 2003; 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, 2003, is incorporated by reference in Registration Statement Nos. 033-59815, 033-59853, 333-68003, 333-61936, 333-67266, 333-100179, 333-100180, and 333-103429 on Form S-8; Registration Statement Nos. 333-78251, 333-85633, 333-71290, 333-77056 on Form S-3; and Registration Statement Nos. 333-40862, 333-54800, and 333-83672 on Form S-4.

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



Additional Exhibit under line item (99) of Item 601 of Regulation S-K accompanying this Report on Form 10-Q pursuant to Interim Guidance in Securities and Exchange Commission Release No. 33-8212 et al. and not deemed filed herewith:

Certification of the Corporate Vice President and Chief Financial Officer of Northrop Grumman Corporation furnished in connection with its Quarterly Report on Form 10-Q for the quarter ended March 31, 2003 pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

**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 quarterly period ended March 31, 2003, as filed with the Securities and Exchange Commission on May 14, 2003 (the "Report"), I, Richard B. Waugh, Jr., Corporate Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 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.

By: /s/ RICHARD B. WAUGH, JR.

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**Richard B. Waugh, Jr.**  
Corporate Vice President and  
Chief Financial Officer

May 14, 2003

A signed original of this written statement required by Section 906 has been provided to Northrop Grumman Corporation and will be retained by Northrop Grumman Corporation and furnished to the Securities and Exchange Commission or its staff upon request.