NORTHROP GRUMMAN CORP /DE/
Form 10-Q
October 24, 2018
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Quarterly Period Ended September 30, 2018
or
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission File Number 1-16411
NORTHROP GRUMMAN CORPORATION
(Exact name of registrant as specified in its charter)

DELAWARE	80-0640649
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2980 Fairview Park Drive, Falls Church, Virginia	22042
(Address of principal executive offices)	(Zip Code)

(703) 280-2900
(Registrant's telephone number, including area code)
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes x No o
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
Yes x No o
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer x	Accelerated filer o
Non-accelerated filer o	Smaller reporting company o
Emerging growth company o	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.o
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes o No x

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

As of October 19, 2018, 173,619,710 shares of common stock were outstanding.

Table of Contents

NORTHROP GRUMMAN CORPORATION

TABLE OF CONTENTS

Table of Contents

NORTHROP GRUMMAN CORPORATION

PART I. FINANCIAL INFORMATION
Item 1. Financial Statements
CONDENSED CONSOLIDATED STATEMENTS OF EARNINGS AND COMPREHENSIVE INCOME
(Unaudited)

	Three Months Ended September 30		Nine Months Ended September 30	
$ in millions, except per share amounts	2018	2017	2018	2017
Sales				
Product	$5,614	$4,183	$14,693	$12,217
Service	2,471	2,386	7,246	7,235
Total sales	8,085	6,569	21,939	19,452
Operating costs and expenses				
Product	4,229	3,189	11,188	9,209
Service	1,861	1,864	5,629	5,608
General and administrative expenses	817	679	2,267	2,063
Operating income	1,178	837	2,855	2,572
Other (expense) income				
Interest expense	(133)	(73)	(420)	(224)
Net FAS (non-service) pension benefit (expense)	135	2	380	(33)
Other, net	57	16	142	67
Earnings before income taxes	1,237	782	2,957	2,382
Federal and foreign income tax expense	93	139	385	534
Net earnings	$1,144	$643	$2,572	$1,848
Basic earnings per share	$6.57	$3.69	$14.76	$10.59
Weighted-average common shares outstanding, in millions	174.1	174.2	174.3	174.5
Diluted earnings per share	$6.54	$3.67	$14.68	$10.52
Weighted-average diluted shares outstanding, in millions	174.9	175.3	175.2	175.6
Net earnings (from above)	$1,144	$643	$2,572	$1,848
Other comprehensive income				
Change in unamortized benefit plan costs, net of tax	84	99	256	300
Change in cumulative translation adjustment	(2)	—	(4)	—
Other, net	(1)	—	(5)	3
Other comprehensive income, net of tax	81	99	247	303
Comprehensive income	$1,225	$742	$2,819	$2,151

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

Table of Contents

NORTHROP GRUMMAN CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Unaudited)

$ in millions	September 30, 2018	December 31, 2017
Assets		
Cash and cash equivalents	$ 1,228	$ 11,225
Accounts receivable, net	1,702	1,054
Unbilled receivables, net	5,600	3,465
Inventoried costs, net	719	398
Prepaid expenses and other current assets	883	445
Total current assets	10,132	16,587
Property, plant and equipment, net of accumulated depreciation of $5,307 for 2018 and $5,066 for 2017	6,025	4,225
Goodwill	18,642	12,455
Intangible assets, net	1,460	52
Deferred tax assets	69	447
Other non-current assets	1,615	1,362
Total assets	$ 37,943	$ 35,128
Liabilities		
Trade accounts payable	$ 1,939	$ 1,661
Accrued employee compensation	1,645	1,382
Advance payments and amounts in excess of costs incurred	1,686	1,761
Other current liabilities	2,769	2,288
Total current liabilities	8,039	7,092
Long-term debt, net of current portion of $517 for 2018 and $867 for 2017	13,889	14,399
Pension and other post-retirement benefit plan liabilities	5,394	5,511
Other non-current liabilities	1,518	994
Total liabilities	28,840	27,996
Commitments and contingencies (Note 8)		
Shareholders’ equity		
Preferred stock, $1 par value; 10,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $1 par value; 800,000,000 shares authorized; issued and outstanding: 2018—173,727,400 and 2017—174,085,619	174	174
Paid-in capital	—	44
Retained earnings	14,464	11,632
Accumulated other comprehensive loss	(5,535)	(4,718)
Total shareholders’ equity	9,103	7,132
Total liabilities and shareholders’ equity	$ 37,943	$ 35,128

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

Table of Contents

NORTHROP GRUMMAN CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Nine Months Ended September 30	
$ in millions	2018	2017
Operating activities		
Net earnings	$2,572	$1,848
Adjustments to reconcile to net cash provided by operating activities:		
Depreciation and amortization	534	323
Stock-based compensation	82	66
Deferred income taxes	176	86
Changes in assets and liabilities:		
Accounts receivable, net	(52)	(368)
Unbilled receivables, net	(898)	(1,049)
Inventoried costs, net	(102)	(20)
Prepaid expenses and other assets	(109)	(95)
Accounts payable and other liabilities	(125)	80
Income taxes payable, net	(114)	(58)
Retiree benefits	(447)	235
Other, net	(67)	(42)
Net cash provided by operating activities	1,450	1,006
Investing activities		
Acquisition of Orbital ATK, net of cash acquired	(7,657)	—
Capital expenditures	(786)	(650)
Other, net	23	21
Net cash used in investing activities	(8,420)	(629)
Financing activities		
Payments of long-term debt	(2,276)	—
Payments to credit facilities	(314)	—
Net borrowings on commercial paper	499	—
Common stock repurchases	(209)	(393)
Cash dividends paid	(616)	(515)
Payments of employee taxes withheld from share-based awards	(84)	(91)
Other, net	(27)	(41)
Net cash used in financing activities	(3,027)	(1,040)
Decrease in cash and cash equivalents	(9,997)	(663)
Cash and cash equivalents, beginning of year	11,225	2,541
Cash and cash equivalents, end of period	$1,228	$1,878

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

Table of Contents

NORTHROP GRUMMAN CORPORATION

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

$ in millions, except per share amounts	Nine Months Ended September 30 2018	2017
Common stock		
Beginning of year	$174	$175
Common stock repurchased	(1)	(2)
Shares issued for employee stock awards and options	1	1
End of period	174	174
Paid-in capital		
Beginning of year	44	—
Common stock repurchased	(34)	—
Stock compensation	(10)	16
End of period	—	16
Retained earnings		
Beginning of year	11,632	10,734
Impact from adoption of ASU 2018-02 and ASU 2016-01 (See Note 1)	1,064	—
Common stock repurchased	(179)	(371)
Net earnings	2,572	1,848
Dividends declared	(616)	(511)
Stock compensation	(9)	(39)
End of period	14,464	11,661
Accumulated other comprehensive loss		
Beginning of year	(4,718)	(5,546)
Impact from adoption of ASU 2018-02 and ASU 2016-01 (See Note 1)	(1,064)	—
Other comprehensive income, net of tax	247	303
End of period	(5,535)	(5,243)
Total shareholders' equity	$9,103	$6,608
Cash dividends declared per share	$3.50	$2.90

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

Table of Contents

NORTHROP GRUMMAN CORPORATION

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

1. BASIS OF PRESENTATION

Principles of Consolidation and Reporting

These unaudited condensed consolidated financial statements (the "financial statements") include the accounts of Northrop Grumman Corporation and its subsidiaries and joint ventures or other investments for which we consolidate the financial results (herein referred to as "Northrop Grumman," the "company," "we," "us," or "our"). Material intercompany accounts, transactions and profits are eliminated in consolidation. Investments in equity securities and joint ventures where the company has significant influence, but not control, are accounted for using the equity method.

On June 6, 2018 (the "Merger date"), the company completed its previously announced acquisition of Orbital ATK, Inc. ("Orbital ATK") (the "Merger"). On the Merger date, Orbital ATK became a wholly-owned subsidiary of the company and its name was changed to Northrop Grumman Innovation Systems, Inc., which we established as a new, fourth business sector ("Innovation Systems"). The operating results of Innovation Systems subsequent to the Merger date have been included in the company's consolidated results of operations. See Note 2 to the financial statements for further information regarding the Merger.

The financial statements are prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP" or "FAS") and in accordance with the rules of the Securities and Exchange Commission (SEC) for interim reporting. The financial statements include adjustments of a normal recurring nature considered necessary by management for a fair presentation of the company's unaudited condensed consolidated financial position, results of operations and cash flows.

The results reported in these financial statements are not necessarily indicative of results that may be expected for the entire year. These financial statements should be read in conjunction with the information contained in the company's Annual Report on Form 10-K for the year ended December 31, 2017 (2017 Annual Report on Form 10-K).

The quarterly information is labeled using a calendar convention; that is, first quarter is consistently labeled as ending on March 31, second quarter as ending on June 30 and third quarter as ending on September 30. It is legacy Northrop Grumman's long-standing practice to establish actual interim closing dates using a "fiscal" calendar, in which we close our books on a Friday near these quarter-end dates in order to normalize the potentially disruptive effects of quarterly closings on business processes. Similarly, Innovation Systems uses a "fiscal" calendar by closing its books on a Sunday near these quarter-end dates and will continue this practice until its business processes are aligned with legacy Northrop Grumman's. The Friday and Sunday closing dates noted herein are both labeled as September 30, consistent with our calendar convention described above. This practice is only used at interim periods within a reporting year.

As previously announced, effective January 1, 2018, we adopted Accounting Standards Codification (ASC) Topic 606, Revenue from Contracts with Customers, and Accounting Standards Update (ASU) No. 2017-07, Compensation Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, using the full retrospective method. The adoption of these standards are reflected in the amounts and disclosures set forth in this Form 10-Q and the effect of these standards on the company's unaudited condensed consolidated statements of earnings and comprehensive income for the three and nine months ended September 30, 2017 and unaudited condensed consolidated statement of financial position as of December 31, 2017 is reflected in Note 12.

Accounting Estimates

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

Revenue Recognition

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

Under ASC Topic 606, the company recognizes revenue for each separately identifiable performance obligation in a contract representing a promise to transfer a distinct good or service to a customer. In most cases, goods and services provided under the company's contracts are accounted for as single performance obligations due to the complex and integrated nature of our products and services. These contracts generally require significant integration of a group of goods and/or services to deliver a combined output. In some contracts, the company provides multiple distinct goods or services to a customer, most commonly when a contract covers multiple phases of the product lifecycle (development, production, maintenance and/or support). In those cases, the company accounts for the distinct contract deliverables as separate performance obligations and allocates the transaction price to each performance obligation based on its relative standalone selling price, which is generally estimated using the cost plus a reasonable margin approach of ASC Topic 606. Warranties are provided on certain contracts, but do not typically provide for services beyond standard assurances and are therefore not within the scope of ASC Topic 606. Likewise, our accounting for costs to obtain or fulfill a contract was not significantly impacted by the adoption of ASC Topic 606 as these costs are not material.

A contract modification exists when the parties to a contract approve a change in the scope or price of a contract. Contracts are often modified for changes in contract specifications or requirements. Most of the company's contract modifications are for goods or services that are not distinct in the context of the contract and are therefore accounted for as part of the original performance obligation through a cumulative estimate-at-completion (EAC) adjustment.

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

Contract Estimates

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

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

We recognize changes in estimated contract sales or costs and the resulting changes in contract profit on a cumulative basis. Cumulative EAC adjustments represent the cumulative effect of the changes on current and prior periods; sales and operating margins in future periods are recognized as if the revised estimates had been used since contract inception. If it is determined that a loss is expected to result on an individual performance obligation, the entire amount of the estimable future loss, including an allocation of general and administrative (G&A) costs, is charged against income in the period the loss is identified. Each loss provision is first offset against costs included in unbilled accounts receivable or inventoried costs; remaining amounts are reflected in other current liabilities.

Significant EAC adjustments on a single contract could have a material effect on the company's financial statements. When such adjustments occur, we generally disclose the nature, underlying conditions and financial impact of the adjustments. No discrete event or adjustments to an individual contract were material to the financial statements during the three months ended September 30, 2018. During the three months ended September 30, 2017, the company recorded a $56 million favorable EAC adjustment at Aerospace Systems.

Table of Contents

NORTHROP GRUMMAN CORPORATION

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

$ in millions, except per share data	Three Months Ended September 30 2018	2017	Nine Months Ended September 30 2018	2017
Operating Income	$149	$114	$408	$357
Net Earnings[(1)]	117	74	322	232
Diluted earnings per share[(1)]	0.67	0.42	1.84	1.32

[(1)] Based on statutory tax rates in effect for each period presented.

Revenue recognized from performance obligations satisfied in previous reporting periods was $149 million and $438 million for the three and nine months ended September 30, 2018, respectively, and $122 million and $368 million for the three and nine months ended September 30, 2017, respectively.

Backlog

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

Company backlog as of September 30, 2018 was $52.6 billion. We expect to recognize approximately 50 percent and 75 percent of our September 30, 2018 backlog as revenue over the next 12 and 24 months, respectively, with the remainder to be recognized thereafter.

Contract Assets and Liabilities

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

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

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

Net contract assets (liabilities) are as follows:

$ in millions	September 30, 2018	December 31, 2017	$ Change	% Change
Unbilled receivables, net	$ 5,600	$ 3,465	$ 2,135	62 %

Advance payments and amounts in excess of costs incurred	(1,686)	(1,761)	75	(4)%
Net contract assets (liabilities)	$ 3,914	$ 1,704	$ 2,210	130 %

The change in the balances of the company's contract assets and liabilities primarily results from timing differences between revenue recognition and customer billings and/or payments. The increase in net contract assets during the nine months ended September 30, 2018, is principally due to the addition of $1.3 billion of net contract assets from

Table of Contents

NORTHROP GRUMMAN CORPORATION

Innovation Systems, higher volume on restricted programs at Aerospace Systems and higher volume on the F-35 program at Mission Systems.
The amount of revenue recognized that was included in the December 31, 2017 contract liability balance was $168 million and $1.2 billion for the three and nine months ended September 30, 2018, respectively. The amount of revenue recognized that was included in the December 31, 2016 contract liability balance was $162 million and $1.0 billion for the three and nine months ended September 30, 2017, respectively.
Disaggregation of Revenue
See Note 11 for information regarding the company's sales by customer type, contract type and geographic region for each of our segments. We believe those categories best depict how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors.
Other Purchased Intangible Assets
Purchased intangible asset balances are included in the identifiable assets of their assigned business segment. Beginning in 2018, the company includes the amortization of purchased intangible assets in unallocated corporate expense within operating income as such amortization is no longer considered part of management's evaluation of segment operating performance. The company's customer-related intangible assets are generally amortized over their respective useful lives based on the pattern in which the future economic benefits of the intangible assets are expected to be consumed. Other purchased intangible assets are generally amortized on a straight-line basis over their estimated useful lives.
Property, Plant and Equipment
Property, plant and equipment are depreciated over the estimated useful lives of individual assets. Most assets are depreciated using declining-balance methods, with the remainder using the straight-line method. Depreciation expense is generally recorded in the same segment where the related assets are held. However, for assets acquired in the Merger, the additional depreciation expense related to the step-up in fair value of acquired property, plant and equipment is recorded in unallocated corporate expense within operating income as such depreciation is not considered part of management's evaluation of segment operating performance.
Accumulated Other Comprehensive Loss
The components of accumulated other comprehensive loss are as follows:

$ in millions	September 30, 2018	December 31, 2017
Unamortized benefit plan costs, net of tax benefit of $1,912 for 2018 and $3,056 for 2017	$ (5,390)	$ (4,586)
Cumulative translation adjustment	(140)	(136)
Other, net	(5)	4
Total accumulated other comprehensive loss	$ (5,535)	$ (4,718)

Unamortized benefit plan costs as of September 30, 2018 reflect a reclassification from accumulated other comprehensive loss to retained earnings of $1.1 billion of stranded tax effects resulting from the Tax Cuts and Jobs Act (the "2017 Tax Act"). This reclassification resulted from the company's early adoption of ASU 2018-02 on January 1, 2018. See "Accounting Standards Updates" below for more information.
Unamortized benefit plan costs consist primarily of net after-tax actuarial losses totaling $5.5 billion and $4.7 billion as of September 30, 2018 and December 31, 2017, respectively. Net actuarial gains or losses are redetermined annually or upon remeasurement events and principally arise from changes in the interest rate used to discount our benefit obligations and differences between expected and actual returns on plan assets.
Reclassifications from accumulated other comprehensive loss to net earnings related to the amortization of benefit plan costs were $86 million and $258 million, net of taxes, for the three and nine months ended September 30, 2018, respectively, and were $100 million and $299 million, net of taxes, for the three and nine months ended September 30, 2017, respectively. The reclassifications represent the amortization of net actuarial losses and prior service credits, and are included in the computation of net periodic pension cost. See Note 9 for further information.

Reclassifications from accumulated other comprehensive loss to net earnings relating to cumulative translation adjustments and effective cash flow hedges were not material for the three and nine months ended September 30, 2018 and 2017.

NORTHROP GRUMMAN CORPORATION

Related Party Transactions
The company had no material related party transactions in any period presented.
Accounting Standards Updates
On February 14, 2018, the Financial Accounting Standards Board (FASB) issued ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. ASU 2018-02 allows companies to reclassify stranded tax effects resulting from the 2017 Tax Act from accumulated other comprehensive income to retained earnings. As described above, the company elected to early adopt ASU 2018-02 on January 1, 2018, which resulted in a reclassification of $1.1 billion of stranded tax effects, principally related to our unamortized benefit plan costs, from accumulated other comprehensive loss to retained earnings. This reclassification included $73 million of other income tax effects related to a reduction in the federal benefit associated with state taxes. Adoption of ASU 2018-02 did not have a material impact on the company’s results of operations and/or cash flows.
On March 10, 2017, the FASB issued ASU No. 2017-07, Compensation Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. ASU 2017-07 requires employers that sponsor defined benefit pension and/or other post-retirement benefit plans to report the service cost component of net benefit cost in the same line item as other compensation costs arising from services rendered by the pertinent employees during the period. Employers are required to present the other components of net benefit costs in the income statement separately from the service cost component and outside a subtotal of income from operations. Additionally, only the service cost component of net periodic pension cost is eligible for asset capitalization. We adopted ASU 2017-07 on January 1, 2018 using the retrospective method. See Note 12 for information regarding the effect of adopting ASU 2017-07 on our unaudited condensed consolidated statement of earnings and comprehensive income for the three and nine months ended September 30, 2017. Adoption of ASU 2017-07 did not have a material impact on our unaudited condensed consolidated statements of financial position or cash flows.
On February 25, 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). ASU 2016-02 supersedes existing lease guidance, including ASC 840 - Leases. Among other things, ASU 2016-02 requires recognition of a right-of-use asset and liability for future lease payments for contracts that meet the definition of a lease and requires disclosure of certain information about leasing arrangements. ASU 2016-02 will be effective January 1, 2019, although early adoption is permitted. On July 30, 2018, the FASB issued ASU No. 2018-11, Leases (Topic 842): Targeted Improvements, which, among other things, allows companies to elect an optional transition method to apply the new lease standard through a cumulative-effect adjustment in the period of adoption. We expect to adopt the standard on January 1, 2019 using the optional transition method. The company has made substantial progress in executing our implementation plan. We have revised our controls and processes to address the lease standard and have completed the implementation and data input for our lease accounting software tool. We are currently evaluating the preliminary information produced by the system and expect to have an estimate of the impact of ASU 2016-02 on the company’s consolidated financial position during the fourth quarter of 2018. Topic ASU 2016-02 also requires expanded disclosure regarding the amounts, timing and uncertainties of cash flows related to a company’s lease portfolio. We are evaluating these disclosure requirements and are incorporating the collection of relevant data into our processes. We do not expect ASU 2016-02 to have a material impact on our annual results of operations and/or cash flows.
On January 5, 2016, the FASB issued ASU No. 2016-01, Financial Instruments (Topic 825): Recognition and Measurement of Financial Assets and Financial Liabilities. ASU 2016-01 requires equity investments that are not accounted for under the equity method of accounting or that do not result in consolidation of the investee to be measured at fair value with changes recognized in net earnings. ASU 2016-01 also eliminates the available-for-sale classification for equity investments that recognized changes in fair value as a component of other comprehensive income. We adopted ASU 2016-01 on January 1, 2018 using the modified retrospective method, which resulted in a $4 million (net of tax) cumulative-effect adjustment from accumulated other comprehensive loss to retained earnings. Adoption of ASU 2016-01 did not have a material impact on our results of operations and/or cash flows.

On May 28, 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). Topic 606 supersedes previous revenue recognition guidance, including ASC 605-35, Revenue Recognition - Construction-Type and Production-Type Contracts, and outlines a single set of comprehensive principles for recognizing revenue under U.S. GAAP. Among other things, it requires companies to identify contractual performance obligations and determine whether revenue should be recognized at a point in time or over time. The primary impact of the adoption of ASC Topic 606 was that, in most cases, the accounting for those contracts where we previously recognized revenue as units were delivered changed under ASC Topic 606 such that we now recognize revenue as costs are

Table of Contents

incurred. In addition, for certain of our contracts, there is a change in the number of performance obligations under ASC Topic 606, which has altered the timing of revenue and margin recognition.

We adopted ASC Topic 606 on January 1, 2018 using the full retrospective method. We applied the transition practical expedient related to remaining performance obligations for reporting periods presented before the date of initial application. No other practical expedients were applied. The cumulative effect of adopting ASC Topic 606 was a $148 million increase to retained earnings at January 1, 2016. See Note 12 for information regarding the effect of adopting ASC Topic 606 on our unaudited condensed consolidated statement of earnings and comprehensive income for the three and nine months ended September 30, 2017 and unaudited condensed consolidated statement of financial position as of December 31, 2017.

Other accounting standards updates adopted and/or issued, but not effective until after September 30, 2018, are not expected to have a material effect on the company's unaudited condensed consolidated financial position, annual results of operations and/or cash flows.

2. ACQUISITION OF ORBITAL ATK

On June 6, 2018, the company completed its previously announced acquisition of Orbital ATK, a global leader in aerospace and defense technologies, by acquiring all of the outstanding shares of Orbital ATK for a purchase price of $7.7 billion in cash. On the Merger date, Orbital ATK became a wholly-owned subsidiary of the company and its name was changed to Northrop Grumman Innovation Systems, Inc. We established Innovation Systems as a new, fourth business sector, whose main products include launch vehicles and related propulsion systems; missile products, subsystems and defense electronics; precision weapons, armament systems and ammunition; satellites and associated space components and services; and advanced aerospace structures. The acquisition was financed with proceeds from the company's debt financing completed in October 2017 and cash on hand. We believe this acquisition will enable us to broaden our capabilities and offerings, provide additional innovative solutions to meet our customers' emerging requirements, create value for shareholders and provide expanded opportunities for our combined employees.

The operating results of Innovation Systems subsequent to the Merger date are included in the company's consolidated results of operations. Innovation Systems recognized sales of $1.4 billion and $1.8 billion, operating income of $161 million and $200 million and net earnings of $128 million and $158 million for the three and nine months ended September 30, 2018, respectively.

The company recognized $29 million of acquisition-related costs that were expensed as incurred during the nine months ended September 30, 2018. These costs are included in Product and Service cost in the unaudited condensed consolidated statement of earnings and comprehensive income.

Preliminary Purchase Price Allocation

The acquisition was accounted for as a purchase business combination. As such, the company recorded the assets acquired and liabilities assumed at fair value, with the excess of the purchase price over the fair value of assets acquired and liabilities assumed recorded as goodwill. Determining the fair value of assets acquired and liabilities assumed requires significant judgment, including the amount and timing of expected future cash flows, long-term growth rates and discount rates. In some cases, the company used discounted cash flow analyses, which were based on our best estimate of future sales, earnings and cash flows after considering such factors as general market conditions, customer budgets, existing firm and future orders, changes in working capital, long term business plans and recent operating performance. Use of different estimates and judgments could yield materially different results.

During the three months ended June 30, 2018, the company completed a preliminary analysis to determine the fair values of the assets acquired and liabilities assumed and the amounts recorded reflected management's initial assessment of fair value as of the Merger date. Based on additional information obtained during the three months ended September 30, 2018, the company refined its initial assessment of fair value and, as a result, recognized the following significant adjustments to our preliminary purchase price allocation: Intangible assets increased $220 million, Other current liabilities increased $94 million, Other current assets increased $67 million, Pension and other post-retirement benefit plan liabilities increased $50 million and Goodwill decreased $104 million. These adjustments did not result in a material impact on the financial results of prior periods.

The company expects to finalize its purchase price allocation within one year of the Merger date. We are continuing to analyze and assess relevant information in the following areas to determine the fair value of assets acquired and liabilities assumed as of the Merger Date: real estate; intangible assets; income tax; and certain existing or potential reserves, such as those for legal, environmental and contract-related matters. The final fair value determination could result in material adjustments to the values presented in the preliminary purchase price allocation table below.

Table of Contents

NORTHROP GRUMMAN CORPORATION

The Merger date fair value of the consideration transferred totaled $7.7 billion in cash, which was comprised of the following:

$ in millions, except per share amounts	Purchase price
Shares of Orbital ATK common stock outstanding as of the Merger date	57,562,152
Cash consideration per share of Orbital ATK common stock	$ 134.50
Total purchase price	$ 7,742

The following preliminary purchase price allocation table presents the company's refined estimate of the fair values of assets acquired and liabilities assumed at the Merger date:

$ in millions	As of June 6, 2018
Cash and cash equivalents	$85
Accounts receivable, net	596
Unbilled receivables, net	1,237
Inventoried costs, net	220
Other current assets	260
Property, plant and equipment	1,509
Goodwill	6,191
Intangible assets	1,525
Deferred tax assets	(264)
Other non-current assets	131
Total assets acquired	11,490
Trade accounts payable	(397)
Accrued employee compensation	(158)
Advance payments and amounts in excess of costs incurred	(222)
Below market contracts[(1)]	(151)
Other current liabilities	(392)
Long-term debt	(1,687)
Pension and other post-retirement benefit plan liabilities	(607)
Other non-current liabilities	(134)
Total liabilities assumed	(3,748)
Total purchase price	$7,742

(1) Included in Other current liabilities.

Below market contracts represent liabilities on certain acquired programs where the expected costs at completion exceed the expected sales under contract. We measured these liabilities based on the estimated price to transfer the obligations to a market participant at the Merger date plus a reasonable profit margin. These liabilities will be reduced as the company incurs costs to complete its performance obligations on the underlying programs. This reduction will be included in sales and is estimated as follows: $37 million in 2018, $66 million in 2019, $46 million in 2020 and $2 million in 2021.

The following table presents a summary of purchased intangible assets and their related estimated useful lives:

	Fair Value (in millions)	Estimated Useful Life in Years
Customer contracts	$ 1,245	9
Commercial customer relationships	280	13

Total customer-related intangible assets	$ 1,525

Table of Contents

NORTHROP GRUMMAN CORPORATION

The preliminary purchase price allocation resulted in the recognition of $6.2 billion of goodwill, a majority of which was allocated to the Innovation Systems sector (refer to Note 5). The goodwill recognized is attributable to expected revenue synergies generated by the integration of Aerospace Systems, Mission Systems and Technology Services products and technologies with those of legacy Orbital ATK, synergies resulting from the consolidation or elimination of certain costs, and intangible assets that do not qualify for separate recognition, such as the assembled workforce of Orbital ATK. None of the goodwill is expected to be deductible for tax purposes.

Supplemental Pro Forma Information

The following table presents unaudited pro forma financial information prepared in accordance with Article 11 of Regulation S-X and computed as if Orbital ATK had been included in our results as of January 1, 2017:

	Three Months Ended September 30	Nine Months Ended September 30	
$ in millions, except per share amounts	2017	2018	2017
Sales	$ 7,744	$24,163	$22,783
Net earnings	655	2,749	1,868
Basic earnings per share	3.76	15.77	10.70
Diluted earnings per share	3.74	15.69	10.64

The unaudited supplemental pro forma financial data has been calculated after applying our accounting policies and adjusting the historical results of Orbital ATK with pro forma adjustments, net of tax, that assume the acquisition occurred on January 1, 2017. Significant pro forma adjustments include the following:

1. The impact of the adoption of ASC Topic 606 on Orbital ATK’s historical sales of $2 million and $23 million, and cost of sales of $9 million and $18 million, for the three and nine months ended September 30, 2017, respectively.
2. The elimination of intercompany sales and costs of sales between the company and Orbital ATK of $80 million for the nine months ended September 30, 2018 and $43 million and $108 million for the three and nine months ended September 30, 2017, respectively.
3. The elimination of nonrecurring transaction costs incurred by the company and Orbital ATK in connection with the Merger of $71 million for the nine months ended September 30, 2018.
4. The recognition of additional depreciation expense, net of removal of historical depreciation expense, of $10 million for the nine months ended September 30, 2018, and $7 million and $21 million for the three and nine months ended September 30, 2017, respectively, related to the step-up in fair value of acquired property, plant and equipment.
5. Additional interest expense related to the debt issued to finance the Merger, including amortization of the debt issuance costs associated with the newly issued debt, of $66 million and $199 million for the three and nine months ended September 30, 2017. Interest expense and amortization of debt issuance costs have been included in the company's historical financial statements since the date of issuance (October 12, 2017).
6. The recognition of additional amortization expense, net of removal of historical amortization expense, of $101 million for the nine months ended September 30, 2018, and $73 million and $217 million for the three and nine months ended September 30, 2017, respectively, related to the fair value of acquired intangible assets.
7. The elimination of Orbital ATK's historical amortization of net actuarial losses and prior service credits and impact of the revised pension and other post-retirement net periodic benefit cost as determined under the company’s plan assumptions of $51 million for the nine months ended September 30, 2018 and $27 million and $81 million for the three and nine months ended September 30, 2017, respectively.
8. The income tax effect of the pro forma adjustments, which was calculated using the federal statutory tax rate in effect in each respective period, of $(2) million for the nine months ended September 30, 2018 and $42 million and $124 million for the three and nine months ended September 30, 2017, respectively.

The unaudited pro forma financial information does not reflect the potential realization of revenue synergies or cost savings, nor does it reflect other costs relating to the integration of the two companies. This pro forma financial information should not be considered indicative of the results that would have actually occurred if the acquisition had been consummated on January 1, 2017, nor are they indicative of future results.

Table of Contents

NORTHROP GRUMMAN CORPORATION

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

Basic Earnings Per Share

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

Diluted Earnings Per Share

Diluted earnings per share primarily include the dilutive effect of awards granted to employees under stock-based compensation plans. The dilutive effect of these securities totaled 0.8 million shares and 0.9 million shares for the three and nine months ended September 30, 2018, respectively. The dilutive effect of these securities totaled 1.1 million shares for both the three and nine months ended September 30, 2017.

Share Repurchases

On September 16, 2015, the company's board of directors authorized a share repurchase program of up to $4.0 billion of the company's common stock (the "2015 Repurchase Program"). Repurchases under the 2015 Repurchase Program commenced in March 2016. As of September 30, 2018, repurchases under the 2015 Repurchase Program totaled $1.9 billion; $2.1 billion remained under this share repurchase authorization. By its terms, the 2015 Repurchase Program is set to expire when we have used all authorized funds for repurchases.

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

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

Repurchase Program Authorization Date	Amount Authorized (in millions)	Total Shares Retired (in millions)	Average Price Per Share[1]	Date Completed	Shares Repurchased (in millions) Nine Months Ended September 30 2018	2017
September 16, 2015	$ 4,000	8.1	$ 230.14		0.7	1.6

[1] Includes commissions paid.

Dividends on Common Stock

In May 2018, the company increased the quarterly common stock dividend 9 percent to $1.20 per share from the previous amount of $1.10 per share.

In January 2018, the company increased the quarterly common stock dividend 10 percent to $1.10 per share from the previous amount of $1.00 per share.

In May 2017, the company increased the quarterly common stock dividend 11 percent to $1.00 per share from the previous amount of $0.90 per share.

4. INCOME TAXES

	Three Months Ended September 30		Nine Months Ended September 30	
$ in millions	2018	2017	2018	2017
Federal and foreign income tax expense	$ 93	$ 139	$ 385	$ 534
Effective income tax rate	7.5 %	17.8 %	13.0 %	22.4 %

Current Quarter

The company's effective tax rate for the three months ended September 30, 2018 was lower as compared with the same period in 2017 principally due to the reduction of the U.S. corporate income tax rate from 35 percent to 21 percent as a result of the 2017 Tax Act. Both periods reflect comparable tax benefits associated with current year research credits. In addition, the company's effective rate for the three months ended September 30, 2018 includes a $70 million benefit recognized for additional research credits and manufacturing deductions related to prior years and a $35 million benefit for pension contributions recognized in connection with the filing of our 2017 tax return. These benefits were partially offset by a $20 million income tax expense associated with tax reform guidance on executive compensation. The company's effective tax rate for the three months ended September 30, 2017 included a $62 million benefit recognized for additional manufacturing deductions and research credits related to prior years and $27 million of tax benefits associated with manufacturing deductions.

Year to Date

The company's effective tax rate for the nine months ended September 30, 2018 was lower as compared with the same period in 2017 principally due to the reduction of the U.S. corporate income tax rate and current quarter items described above. In addition, the company's effective tax rate for the nine months ended September 30, 2018 includes $26 million of excess tax benefits related to employee share-based compensation. The company's effective tax rate for the nine months ended September 30, 2017 included $57 million of tax benefits associated with manufacturing deductions, $47 million of excess tax benefits related to employee share-based compensation and a $42 million benefit recognized in connection with the Congressional Joint Committee on Taxation's approval of the Internal Revenue Service (IRS) examination of the company's 2012-2013 tax returns.

The company recognized the income tax effects of the 2017 Tax Act in the financial statements included in its 2017 Annual Report on Form 10-K in accordance with Staff Accounting Bulletin No. 118, which provides SEC staff guidance for the application of ASC Topic 740, Income Taxes, in the reporting period in which the 2017 Tax Act was signed into law. During the three months ended September 30, 2018, the company finalized its accounting for the income tax effects of the 2017 Tax Act and recognized the following measurement period adjustments to the provisional amounts recorded in its 2017 Annual Report on Form 10-K in connection with the 2017 Tax Act:

Transition Tax on Foreign Earnings

The company recognized a measurement period increase to income tax expense of $5 million related to the one-time transition tax on certain foreign earnings. This resulted in a corresponding decrease in deferred tax assets due to the utilization of foreign tax credit carryforwards.

Acceleration of Depreciation

The company recognized a measurement period increase to income taxes payable of $17 million and a corresponding increase in deferred tax assets attributable to the accelerated depreciation for certain assets placed into service after September 27, 2017.

In connection with the Merger, the company has initially recognized an increase in unrecognized tax benefits of approximately $150 million for matters associated with legacy Orbital ATK, principally related to federal and state research credits. In addition, during the three and nine months ended September 30, 2018, we increased our unrecognized tax benefits related to our methods of accounting associated with the 2017 Tax Act by approximately $25 million and $75 million, respectively, and it is reasonably possible that within the next twelve months those unrecognized tax benefits may change by up to $100 million.

We file income tax returns in the U.S. federal jurisdiction and in various state and foreign jurisdictions. The Northrop Grumman 2014-2015 federal tax returns and refund claims related to its 2007-2011 federal tax returns are currently under IRS examination. In addition, legacy Orbital ATK federal tax returns for the year ended March 31, 2015 and nine-month transition period ended December 31, 2015 are currently under IRS examination. The company believes it is reasonably possible that within the next twelve months we may resolve certain matters related to the examination of the legacy Orbital ATK federal tax returns for these periods, which may result in reductions of our unrecognized tax benefits up to $35 million and income tax expense up to $30 million.

5. GOODWILL AND OTHER PURCHASED INTANGIBLE ASSETS

Goodwill

As discussed in Note 2, Innovation Systems was established as a new, fourth business sector of the company. The Merger resulted in the recognition of $6.2 billion of goodwill, a majority of which was allocated to the Innovation Systems sector. A portion of this goodwill was allocated to the company's other sectors based on expected revenue synergies generated by the integration of their products and technologies with those of Innovation Systems. The amount of goodwill recognized and allocated to the sectors is subject to change, pending the final determination of the fair value of assets acquired and liabilities assumed in connection with the Merger (see Note 2).

Table of Contents

NORTHROP GRUMMAN CORPORATION

Changes in the carrying amounts of goodwill were as follows:

$ in millions	Aerospace Systems	Innovation Systems	Mission Systems	Technology Services	Total
Balance as of December 31, 2017	$ 3,742	$ —	$ 6,696	$ 2,017	$ 12,455
Acquisition of Orbital ATK	418	5,225	469	79	6,191
Other[1]	—	—	(1)	(3)	(4)
Balance as of September 30, 2018	$ 4,160	$ 5,225	$ 7,164	$ 2,093	$ 18,642

[1] Other consists primarily of adjustments for foreign currency translation.

Accumulated goodwill impairment losses at September 30, 2018 and December 31, 2017, totaled $570 million at the Aerospace Systems segment.

Other Purchased Intangible Assets

Net customer-related and other intangible assets, including the fair value of purchased intangible assets acquired in the Merger, are as follows:

$ in millions	September 30, 2018	December 31, 2017
Gross customer-related and other intangible assets	$ 3,358	$ 1,833
Less accumulated amortization	(1,898)	(1,781)
Net customer-related and other intangible assets	$ 1,460	$ 52

Amortization expense for the three and nine months ended September 30, 2018 was $89 million and $117 million, respectively, and was $3 million and $10 million for the three and nine months ended September 30, 2017, respectively. The company’s customer-related intangible assets are generally amortized over their respective useful lives based on the pattern in which the future economic benefits of the intangible assets are expected to be consumed. Other purchased intangible assets are generally amortized on a straight-line basis over their estimated useful lives. The company’s purchased intangible assets are being amortized over an aggregate weighted-average period of 12 years. As of September 30, 2018, the expected future amortization of purchased intangibles for each of the next five years is as follows:

$ in millions	
2018 (remainder of year)	$ 90
2019	331
2020	262
2021	204
2022	197

6. FAIR VALUE OF FINANCIAL INSTRUMENTS

The company holds a portfolio of marketable securities consisting of securities to partially fund non-qualified employee benefit plans. A portion of these securities are held in common/collective trust funds and are measured at fair value using net asset value (NAV) per share as a practical expedient; and therefore are not required to be categorized in the fair value hierarchy table below. Marketable securities are included in Other non-current assets in the unaudited condensed consolidated statements of financial position.

The company's derivative portfolio consists primarily of commodity forward contracts and foreign currency forward contracts. As a result of the Merger, the company assumed commodity forward contracts, which Innovation Systems periodically uses to hedge forecasted purchases of certain commodities. The contracts generally establish a fixed price for the underlying commodity and are designated and qualify as effective cash flow hedges of such commodity purchases. Commodity derivatives are valued based on prices of future exchanges and recently reported transactions in the marketplace. For foreign currency forward contracts, where model-derived valuations are appropriate, the company utilizes the income approach to determine the fair value and uses the applicable London Interbank Offered Rate (LIBOR) swap rates.

-15-

NORTHROP GRUMMAN CORPORATION

The following table presents the financial assets and liabilities the company records at fair value on a recurring basis identified by the level of inputs used to determine fair value:

$ in millions	September 30, 2018 Level 1	Level 2	Total	December 31, 2017 Level 1	Level 2	Total
Financial Assets (Liabilities)						
Marketable securities	$360	$ —	$360	$352	$ 1	$353
Marketable securities valued using NAV	—	—	15	—	—	—
Total marketable securities	360	—	375	352	1	353
Derivatives	—	(7)	(7)	—	—	—

At September 30, 2018, the company had commodity forward contracts outstanding that hedge forecasted commodity purchases of 13 million pounds of copper and 4 million pounds of zinc. Gains or losses on the commodity forward contracts are recognized in cost of sales as the performance obligations on related contracts are satisfied.

The notional value of the company's foreign currency forward contracts at September 30, 2018 and December 31, 2017 was $117 million and $89 million, respectively. The portion of notional value designated as a cash flow hedge at September 30, 2018 and December 31, 2017 was $2 million and $8 million, respectively.

The derivative fair values and related unrealized gains/losses at September 30, 2018 and December 31, 2017 were not material.

There were no transfers of financial instruments between the three levels of the fair value hierarchy during the nine months ended September 30, 2018.

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

Long-term Debt

The estimated fair value of long-term debt was $14.3 billion and $16.0 billion as of September 30, 2018 and December 31, 2017, respectively. We calculated the fair value of long-term debt using Level 2 inputs, based on interest rates available for debt with terms and maturities similar to the company's existing debt arrangements. The carrying value of long-term debt was $14.4 billion and $15.3 billion as of September 30, 2018 and December 31, 2017, respectively. The current portion of long-term debt is recorded in Other current liabilities in the unaudited condensed consolidated statements of financial position.

In connection with the Merger, the company assumed $1.7 billion of long-term debt, all of which was repaid as of September 30, 2018.

7. INVESTIGATIONS, CLAIMS AND LITIGATION

Litigation

On May 4, 2012, the company commenced an action, Northrop Grumman Systems Corp. v. United States, in the U.S. Court of Federal Claims. This lawsuit relates to an approximately $875 million firm fixed price contract awarded to the company in 2007 by the U.S. Postal Service (USPS) for the construction and delivery of flats sequencing systems (FSS) as part of the postal automation program. The FSS have been delivered. The company's lawsuit is based on various theories of liability. The complaint seeks approximately $63 million for unpaid portions of the contract price, and approximately $115 million based on the company's assertions that, through various acts and omissions over the life of the contract, the USPS adversely affected the cost and schedule of performance and materially altered the company's obligations under the contract. The United States responded to the company's complaint with an answer, denying most of the company's claims, and counterclaims seeking approximately $410 million, less certain amounts outstanding under the contract. The principal counterclaim alleges that the company delayed its performance and caused damages to the USPS because USPS did not realize certain costs savings as early as it had expected. On April 2, 2013, the U.S. Department of Justice informed the company of a False Claims Act complaint relating to the FSS contract that was filed under seal by a relator in June 2011 in the U.S. District Court for the Eastern District of Virginia. On June 3, 2013, the United States filed a Notice informing the Court that the United States had decided not to intervene in this case. The relator alleged that the company violated the False Claims Act in a number of ways with respect to the FSS contract, alleged damage to the USPS in an amount of at least approximately $179 million annually, alleged that he was improperly discharged in retaliation, and sought an unspecified partial refund of the contract purchase price, penalties, attorney’s fees and other costs of suit. The relator later voluntarily dismissed his retaliation claim and reasserted it in a separate arbitration, which he also ultimately voluntarily dismissed. On September 5, 2014, the court granted the company's motion for summary judgment and ordered the relator's False Claims Act case be dismissed with prejudice. On December 19, 2014, the company filed a motion for partial summary judgment asking the court to dismiss the principal counterclaim referenced above. On June 29, 2015, the Court heard argument and denied that motion without prejudice to filing a later motion to dismiss. On February 16, 2018, both the company and the United States filed motions to dismiss many of the claims and counterclaims in whole or in part. The United States also filed a motion seeking to amend its answer and counterclaim, including to reduce its counterclaim to approximately $193 million, which the court granted on June 11, 2018. Although the ultimate outcome of these matters ("the FSS matters," collectively), including any possible loss, cannot be predicted or reasonably estimated at this time, the company intends vigorously to pursue and defend the FSS matters.

On August 8, 2013, the company received a court-appointed expert's report in litigation pending in the Second Federal Court of the Federal District in Brazil brought by the Brazilian Post and Telegraph Corporation (ECT), a Brazilian state-owned entity, against Solystic SAS (Solystic), a French subsidiary of the company, and two of its consortium partners. In this suit, commenced on December 17, 2004, and relatively inactive for some period of time, ECT alleges the consortium breached its contract with ECT and seeks damages of approximately R$111 million (the equivalent of approximately $27 million as of September 30, 2018), plus interest, inflation adjustments and attorneys' fees, as authorized by Brazilian law, which amounts could be significant over time. The original suit sought R$89 million (the equivalent of approximately $22 million as of September 30, 2018) in damages. In October 2013, ECT asserted an additional damage claim of R$22 million (the equivalent of approximately $5 million as of September 30, 2018). In its counterclaim, Solystic alleges ECT breached the contract by wrongfully refusing to accept the equipment Solystic had designed and built and seeks damages of approximately €31 million (the equivalent of approximately $36 million as of September 30, 2018), plus interest, inflation adjustments and attorneys' fees, as authorized by Brazilian law. The Brazilian court retained an expert to consider certain issues pending before it. On August 8, 2013 and September 10, 2014, the company received reports from the expert, which contain some recommended findings relating to liability and the damages calculations put forth by ECT. Some of the expert's recommended findings were favorable to the company and others were favorable to ECT. In November 2014, the parties submitted comments on the expert's most recent report. On June 16, 2015, the court published a decision denying the parties' request to present oral testimony. At some future point, the court is expected to issue a decision on the parties' claims and counterclaims that could accept or reject, in whole or in part, the expert's recommended findings.

The company previously identified and disclosed to the U.S. government various issues relating primarily to time-charging practices of some employees working on a particular program with remote deployments. The Department of Justice is continuing to investigate this matter and the company is cooperating. Depending upon the ultimate outcome of this matter, the company could be subject to damages, civil and criminal fines, other costs or payments, reputational harm, penalties or other sanctions, and suspension or debarment actions. Although the U.S. government and the company are in discussions, they have not reached resolution and the ultimate outcome of this matter has not been determined at this time.

We are engaged in remediation activities relating to environmental conditions allegedly resulting from historic operations at the former United States Navy and Grumman facilities in Bethpage, New York. For over 20 years, we have worked closely with the United States Navy, the United States Environmental Protection Agency, the New York State Department of Environmental Conservation, the New York State Department of Health and other federal, state and local governmental authorities, to address legacy environmental conditions in Bethpage. We have incurred, and expect to continue to incur, as included in Note 8, substantial remediation costs related to these environmental conditions. The remediation standards or requirements to which we are subject may change and costs may increase materially. The State of New York has notified us that it intends to seek to impose additional remedial requirements and, among other things, is evaluating natural resource damages. In addition, we are and may become a party to various legal proceedings and disputes related to remediation and/or alleged environmental impacts in Bethpage, including with federal and state entities, local municipalities and water districts, insurance carriers and class action plaintiffs. These Bethpage matters could result in additional costs, fines, penalties, sanctions, compensatory or other damages (including natural resource damages), determinations on allocation, allowability and coverage, and non-monetary relief. We cannot at this time predict or reasonably estimate the potential cumulative outcomes or ranges of possible liability of these aggregate Bethpage matters.

On August 12, 2016, a putative class action complaint, naming Orbital ATK and two of its then-officers as defendants, Steven Knurr, et al. v. Orbital ATK, Inc., No. 16-cv-01031 (TSE-MSN), was filed in the United States

Table of Contents

District Court for the Eastern District of Virginia. The complaint asserts claims on behalf of purchasers of Orbital ATK securities for violations of Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5, allegedly arising out of false and misleading statements and the failure to disclose that: (i) Orbital ATK lacked effective control over financial reporting; and (ii) as a result, it failed to record an anticipated loss on a long-term contract with the U.S. Army to manufacture and supply small caliber ammunition at the U.S. Army's Lake City Army Ammunition Plant. On April 24, 2017 and October 10, 2017, the plaintiffs filed amended complaints naming additional defendants and asserting claims for alleged violations of additional sections of the Exchange Act and alleged false and misleading statements in Orbital ATK’s Form S-4 filed in connection with the Orbital-ATK Merger. The complaint seeks damages, reasonable costs and expenses at trial, including counsel and expert fees, and such other relief as deemed appropriate by the Court. On August 8, 2018, plaintiffs sought leave to file an additional amended complaint; defendants filed an opposition. On August 29, 2018, the court stayed and administratively closed the case except for fact discovery, which is complete. The court subsequently extended the stay and closure until November 9, 2018. A mediation session is currently scheduled for November 6, 2018. The company intends vigorously to defend itself in connection with this matter, and we currently expect related contingencies will continue to be included in the company’s measurement period adjustments of the fair value of assets acquired and liabilities assumed in the Merger (see Note 2).

The SEC is investigating Orbital ATK’s historical accounting practices relating to the restatement of Orbital’s unaudited condensed consolidated financial statements for the quarterly periods ended July 5, 2015 and October 4, 2015 described in the Transition Report on Form 10-K for the nine-month period ending December 31, 2015 previously filed on March 15, 2016. The SEC is also investigating matters relating to a voluntary disclosure Orbital ATK made concerning the restatement described in Orbital ATK’s Form 10-K/A for the nine-month period ending December 31, 2015 filed on February 24, 2017. The ultimate outcome of these matters, including any possible loss, cannot be predicted or reasonably estimated at this time and the company intends to continue to cooperate with the SEC.

The company is a party to various other investigations, lawsuits, claims, enforcement actions and other legal proceedings, including government investigations and claims, that arise in the ordinary course of our business. The nature of legal proceedings is such that we cannot assure the outcome of any particular matter. However, based on information available to the company to date, the company does not believe that the outcome of any of these other matters pending against the company is likely to have a material adverse effect on the company’s unaudited condensed consolidated financial position as of September 30, 2018, or its annual results of operations and/or cash flows.

8. COMMITMENTS AND CONTINGENCIES

U.S. Government Cost Claims

From time to time, the company is advised of claims by the U.S. government concerning certain potential disallowed costs, plus, at times, penalties and interest. When such findings are presented, the company and U.S. government representatives engage in discussions to enable the company to evaluate the merits of these claims, as well as to assess the amounts being claimed. Where appropriate, provisions are made to reflect the company’s estimated exposure for such potential disallowed costs. Such provisions are reviewed periodically using the most recent information available. The company believes it has adequately reserved for disputed amounts that are probable and reasonably estimable, and that the outcome of any such matters would not have a material adverse effect on its unaudited condensed consolidated financial position as of September 30, 2018, or its annual results of operations and/or cash flows.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Environmental Matters

The table below summarizes management's estimate of the range of reasonably possible future costs for environmental remediation, the amount accrued within that range, and the deferred costs expected to be recoverable through overhead charges on U.S. government contracts as of September 30, 2018 and December 31, 2017:

$ in millions	Range of Reasonably Possible Future Costs[1]	Accrued Costs[2]	Deferred Costs[3]
September 30, 2018	$455 - $835	$ 469	$ 348
December 31, 2017	405 - 792	410	207

(1) Estimated remediation costs are not discounted to present value. The range of reasonably possible future costs does not take into consideration amounts expected to be recoverable through overhead charges on U.S. government contracts.

(2) As of September 30, 2018, $163 million is recorded in Other current liabilities and $306 million is recorded in Other non-current liabilities.

(3) As of September 30, 2018, $124 million is deferred in Prepaid expenses and other current assets and $224 million is deferred in Other non-current assets. These amounts reflect a $103 million increase during the third quarter of 2018 in our estimated recovery of certain environmental remediation costs and are evaluated for recoverability on a routine basis.

As a result of the Merger, we assumed certain environmental remediation liabilities that are included in the accrued costs above, along with the related deferred costs expected to be recoverable on U.S. government contracts.

Although management cannot predict whether new information gained as our environmental remediation projects progress, or as changes in facts and circumstances occur, will materially affect the estimated liability accrued, except with respect to Bethpage, we do not anticipate that future remediation expenditures associated with our currently identified projects will have a material adverse effect on the company's unaudited condensed consolidated financial position as of September 30, 2018, or its annual results of operations and/or cash flows. With respect to Bethpage, as described in Note 7, we cannot at this time estimate the range of reasonably possible additional future costs that could result from potential changes to remediation standards or requirements to which we are subject.

Financial Arrangements

In the ordinary course of business, the company uses standby letters of credit and guarantees issued by commercial banks and surety bonds issued principally by insurance companies to guarantee the performance on certain obligations. At September 30, 2018, there were $398 million of stand-by letters of credit and guarantees and $212 million of surety bonds outstanding.

Indemnifications

The company has provided indemnification for certain environmental, income tax and other potential liabilities in connection with certain of its divestitures. The settlement of these liabilities is not expected to have a material adverse effect on the company's unaudited condensed consolidated financial position as of September 30, 2018, or its annual results of operations and/or cash flows.

Operating Leases

Rental expense for operating leases for the three and nine months ended September 30, 2018 was $97 million and $270 million, respectively, and was $73 million and $227 million for the three and nine months ended September 30, 2017, respectively. These amounts are net of immaterial amounts of sublease rental income.

Commercial Paper

In May 2018, the company commenced a commercial paper program that serves as a source of short-term financing. In September 2018, the company amended its commercial paper program to increase its capacity to issue unsecured commercial paper notes from $750 million up to $2.0 billion. The commercial paper notes outstanding have original maturities of 90 days or less from the date of issuance. At September 30, 2018, there were $499 million of outstanding short-term commercial paper borrowings at a weighted-average interest rate of 2.43 percent. The outstanding balance of commercial paper borrowings is recorded in Other current liabilities in the unaudited condensed consolidated

statements of financial position.
Credit Facilities
In August 2018, the company entered into a new five-year senior unsecured credit facility in an aggregate principal amount of $2.0 billion (the “2018 Credit Agreement”). The 2018 Credit Agreement replaced the company’s prior five-year revolving credit facility in an aggregate amount of $1.6 billion entered into on July 8, 2015. The revolving

credit facility established under the 2018 Credit Agreement is intended to support the company's commercial paper program and other general corporate purposes.

The 2018 Credit Agreement contains generally customary terms and conditions, including covenants restricting the company's ability to sell all or substantially all of its assets, merge or consolidate with another entity or undertake other fundamental changes and incur liens. The company also cannot permit the ratio of its debt to capitalization (as set forth in the credit agreement) to exceed 65 percent. At September 30, 2018, there was no balance outstanding under this facility; however, the outstanding balance of commercial paper borrowings reduces the amount available for borrowing under the 2018 Credit Agreement.

In December 2016, a subsidiary of the company entered into a two-year credit facility, with two additional one-year option periods, in an aggregate principal amount of £120 million (the equivalent of approximately $156 million as of September 30, 2018) (the "2016 Credit Agreement"). The company exercised the first option to extend the maturity to December 2019. The 2016 Credit Agreement is guaranteed by the company. At September 30, 2018, there was £90 million (the equivalent of approximately $117 million) outstanding under this facility, which bears interest at a rate of LIBOR plus 1.10 percent. All of the borrowings outstanding under this facility mature less than one year from the date of issuance, but may be renewed under the terms of the facility. Based on our intent and ability to refinance the obligations on a long-term basis, substantially all of the borrowings are classified as non-current.

At September 30, 2018, the company was in compliance with all covenants under its credit agreements.

9. RETIREMENT BENEFITS

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

	Three Months Ended September 30				Nine Months Ended September 30			
	Pension Benefits		Medical and Life Benefits		Pension Benefits		Medical and Life Benefits	
$ in millions	2018	2017	2018	2017	2018	2017	2018	2017
Components of net periodic benefit cost								
Service cost	$102	$97	$5	$5	$301	$291	$15	$16
Interest cost	316	312	20	21	906	937	58	63
Expected return on plan assets	(571)	(471)	(26)	(22)	(1,644)	(1,414)	(75)	(67)
Amortization of:								
Prior service credit	(15)	(14)	(5)	(4)	(44)	(43)	(16)	(15)
Net loss from previous years	135	171	(2)	2	402	553	(2)	9
Net periodic benefit cost	$(33)	$95	$(8)	$2	$(79)	$324	$(20)	$6

Changes in Presentation

As discussed in Note 1, we adopted ASU 2017-07 on January 1, 2018 using the retrospective method, which changed the financial statement presentation of service costs and the other components of net periodic benefit cost. The service cost component continues to be included in operating income; however, the other components are now presented in Net FAS (non-service) pension benefit (expense) in the unaudited condensed consolidated statements of earnings and comprehensive income. In addition, interest on service cost and plan administrative expenses which, in some cases, have historically been included in service cost are now consistently presented in the interest cost and amortization of net actuarial loss components, respectively. As a result, the company reclassified interest on service cost of $4 million and $12 million and plan administrative expense adjustments of $(7) million and $19 million from service cost to the interest cost and amortization of net actuarial loss components, respectively, for its pension plans in the three and nine months ended September 30, 2017, respectively, to conform to the current year presentation. For the company's medical and life benefit plans, plan administrative expenses of $1 million and $3 million were reclassified from service cost to the amortization of net actuarial loss component for the three and nine months ended September 30, 2017, respectively, to conform to the current year presentation. This change in presentation had no impact on net periodic benefit cost.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Employer Contributions

The company sponsors defined benefit pension and post-retirement plans, as well as defined contribution plans. We fund our defined benefit pension plans annually in a manner consistent with the Employee Retirement Income Security Act of 1974, as amended by the Pension Protection Act of 2006. Additionally, in the third quarter of 2018, we made a voluntary pension contribution of $250 million.

Contributions made by the company to its retirement plans are as follows:

	Three Months Ended September 30		Nine Months Ended September 30	
$ in millions	2018	2017	2018	2017
Defined benefit pension plans	$ 273	$ 20	$ 318	$ 71
Medical and life benefit plans	10	11	32	35
Defined contribution plans	104	91	296	267

10. STOCK COMPENSATION PLANS AND OTHER COMPENSATION ARRANGEMENTS

Stock Awards

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

	Nine Months Ended September 30	
in millions	2018	2017
RSRs granted	0.1	0.1
RPSRs granted	0.2	0.3
Grant date aggregate fair value	$ 119	$ 92

RSRs typically vest on the third anniversary of the grant date, while RPSRs generally vest and pay out based on the achievement of financial metrics over a three-year period.

Cash Awards

The following table presents the minimum and maximum aggregate payout amounts related to cash units (CUs) and cash performance units (CPUs) granted to employees in the periods presented:

	Nine Months Ended September 30	
$ in millions	2018	2017
Minimum aggregate payout amount	$ 36	$ 36
Maximum aggregate payout amount	205	199

CUs typically vest and settle in cash on the third anniversary of the grant date, while CPUs generally vest and pay out in cash based on the achievement of financial metrics over a three-year period.

Table of Contents

NORTHROP GRUMMAN CORPORATION

11. SEGMENT INFORMATION

The company is aligned in four operating sectors, which also comprise our reportable segments: Aerospace Systems, Innovation Systems, Mission Systems and Technology Services.

The following table presents sales and operating income by segment:

	Three Months Ended September 30		Nine Months Ended September 30	
$ in millions	2018	2017	2018	2017
Sales				
Aerospace Systems	$3,282	$3,125	$9,899	$9,112
Innovation Systems	1,415	—	1,815	—
Mission Systems	2,911	2,836	8,668	8,495
Technology Services	1,040	1,183	3,232	3,535
Intersegment eliminations	(563)	(575)	(1,675)	(1,690)
Total sales	8,085	6,569	21,939	19,452
Operating income				
Aerospace Systems	376	344	1,074	987
Innovation Systems	161	—	200	—
Mission Systems	399	359	1,122	1,102
Technology Services	111	124	328	378
Intersegment eliminations	(68)	(71)	(204)	(211)
Total segment operating income	979	756	2,520	2,256
Net FAS (service)/CAS pension adjustment	176	170	440	478
Unallocated corporate income (expense)	24	(88)	(102)	(159)
Other	(1)	(1)	(3)	(3)
Total operating income	$1,178	$837	$2,855	$2,572

Net FAS (Service)/CAS Pension Adjustment

For financial statement purposes, we account for our employee pension plans in accordance with FAS. However, the cost of these plans is charged to our contracts in accordance with the Federal Acquisition Regulation (FAR) and the related U.S. Government Cost Accounting Standards (CAS). The net FAS (service)/CAS pension adjustment reflects the difference between CAS pension expense included as cost in segment operating income and the service cost component of FAS expense included in total operating income. The non-service cost components of FAS expense, which include interest cost, expected return on plan assets, and amortization of prior service credit and net actuarial loss, are presented in Net FAS (non-service) pension benefit (expense) in the unaudited condensed consolidated statements of earnings and comprehensive income as a result of our adoption of ASU 2017-07 discussed in Note 1.

Unallocated Corporate Income (Expense)

Unallocated corporate expense includes the portion of corporate costs not considered allowable or allocable under applicable CAS or FAR, and therefore not allocated to the segments, such as a portion of management and administration, legal, environmental, compensation, retiree benefits and other corporate unallowable costs. Unallocated corporate expense also includes costs not considered part of management’s evaluation of segment operating performance, such as amortization of purchased intangible assets and the additional depreciation expense related to the step-up in fair value of property, plant and equipment acquired in connection with the Merger.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Disaggregation of Revenue

Sales by Customer Type	Three Months Ended September 30				Nine Months Ended September 30			
	2018		2017		2018		2017	
$ in millions	$	%[3]	$	%[3]	$	%[3]	$	%[3]
Aerospace Systems								
U.S. Government [1]	$2,926	89 %	$2,724	87 %	$8,633	87 %	$7,893	87 %
International [2]	270	8 %	295	10 %	990	10 %	876	10 %
Other Customers	44	2 %	36	1 %	124	1 %	114	1 %
Intersegment sales	42	1 %	70	2 %	152	2 %	229	2 %
Aerospace Systems sales	3,282	100%	3,125	100%	9,899	100%	9,112	100%
Innovation Systems								
U.S. Government [1]	972	69 %	—	—	1,237	68 %	—	—
International [2]	272	19 %	—	—	364	20 %	—	—
Other Customers	134	9 %	—	—	164	9 %	—	—
Intersegment sales	37	3 %	—	—	50	3 %	—	—
Innovation Systems sales	1,415	100%	—	—	1,815	100%	—	—
Mission Systems								
U.S. Government [1]	2,232	77 %	2,193	77 %	6,577	76 %	6,606	78 %
International [2]	374	12 %	383	14 %	1,144	13 %	1,090	13 %
Other Customers	25	1 %	27	1 %	89	1 %	81	1 %
Intersegment sales	280	10 %	233	8 %	858	10 %	718	8 %
Mission Systems sales	2,911	100%	2,836	100%	8,668	100%	8,495	100%
Technology Services								
U.S. Government [1]	581	56 %	630	53 %	1,780	55 %	1,938	55 %
International [2]	183	17 %	187	16 %	596	18 %	564	16 %
Other Customers	72	7 %	94	8 %	241	8 %	290	8 %
Intersegment sales	204	20 %	272	23 %	615	19 %	743	21 %
Technology Services sales	1,040	100%	1,183	100%	3,232	100%	3,535	100%
Total								
U.S. Government [1]	6,711	83 %	5,547	85 %	18,227	83 %	16,437	85 %
International [2]	1,099	14 %	865	13 %	3,094	14 %	2,530	13 %
Other Customers	275	3 %	157	2 %	618	3 %	485	2 %
Total Sales	$8,085	100%	$6,569	100%	$21,939	100%	$19,452	100%

[1] Sales to the U.S. government include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is the U.S. government. Each of the company's segments derives substantial revenue from the U.S. government.

[2] International sales include sales from contracts for which we are the prime contractor, as well as those for which we are a subcontractor and the ultimate customer is an international customer. These sales include foreign military sales contracted through the U.S. government, direct sales with governments outside the U.S. and commercial sales with customers outside the U.S.

[3] Percentages calculated based on total segment sales.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Sales by Contract Type	Three Months Ended September 30				Nine Months Ended September 30			
	2018		2017		2018		2017	
$ in millions	$	%[1]	$	%[1]	$	%[1]	$	%[1]
Aerospace Systems								
Cost-type	$1,953	60%	$1,782	58%	$5,789	59%	$5,449	61%
Fixed-price	1,287	40%	1,273	42%	3,958	41%	3,434	39%
Intersegment sales	42		70		152		229	
Aerospace System sales	3,282		3,125		9,899		9,112	
Innovation Systems								
Cost-type	373	27%	—	—	472	27%	—	—
Fixed-price	1,005	73%	—	—	1,293	73%	—	—
Intersegment sales	37		—		50		—	
Innovation System sales	1,415		—		1,815		—	
Mission Systems								
Cost-type	1,259	48%	1,315	51%	3,745	48%	3,984	51%
Fixed-price	1,372	52%	1,288	49%	4,065	52%	3,793	49%
Intersegment sales	280		233		858		718	
Mission System sales	2,911		2,836		8,668		8,495	
Technology Services								
Cost-type	373	45%	435	48%	1,195	46%	1,284	46%
Fixed-price	463	55%	476	52%	1,422	54%	1,508	54%
Intersegment sales	204		272		615		743	
Technology Services sales	1,040		1,183		3,232		3,535	
Total								
Cost-type	3,958	49%	3,532	54%	11,201	51%	10,717	55%
Fixed-price	4,127	51%	3,037	46%	10,738	49%	8,735	45%
Total Sales	$8,085		$6,569		$21,939		$19,452	

[1] Percentages calculated based on external customer sales.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Sales by Geographic Region	Three Months Ended September 30				Nine Months Ended September 30			
	2018		2017		2018		2017	
$ in millions	$	%[2]	$	%[2]	$	%[2]	$	%[2]
Aerospace Systems								
United States	$2,970	92 %	$2,760	90 %	$8,757	90 %	$8,007	90 %
Asia/Pacific	121	4 %	155	5 %	499	5 %	500	6 %
All other [1]	149	4 %	140	5 %	491	5 %	376	4 %
Intersegment sales	42		70		152		229	
Aerospace Systems sales	3,282		3,125		9,899		9,112	
Innovation Systems								
United States	1,105	80 %	—	—	1,401	79 %	—	—
Asia/Pacific	72	5 %	—	—	96	6 %	—	—
All other [1]	201	15 %	—	—	268	15 %	—	—
Intersegment sales	37		—		50		—	
Innovation Systems sales	1,415		—		1,815		—	
Mission Systems								
United States	2,253	86 %	2,220	85 %	6,666	85 %	6,688	86 %
Asia/Pacific	208	8 %	161	6 %	521	7 %	470	6 %
All other [1]	170	6 %	222	9 %	623	8 %	619	8 %
Intersegment sales	280		233		858		718	
Mission Systems sales	2,911		2,836		8,668		8,495	
Technology Services								
United States	653	78 %	723	79 %	2,021	77 %	2,228	80 %
Asia/Pacific	45	5 %	28	3 %	113	4 %	102	4 %
All other [1]	138	17 %	160	18 %	483	19 %	462	16 %
Intersegment sales	204		272		615		743	
Technology Services sales	1,040		1,183		3,232		3,535	
Total								
United States	6,981	86 %	5,703	87 %	18,845	86 %	16,923	87 %
Asia/Pacific	446	6 %	344	5 %	1,229	6 %	1,072	6 %
All other [1]	658	8 %	522	8 %	1,865	8 %	1,457	7 %
Total Sales	$8,085	100 %	$6,569	100 %	$21,939	100 %	$19,452	100 %

[1] All other is principally comprised of Europe and the Middle East.
[2] Percentages calculated based on external customer sales.

Table of Contents

NORTHROP GRUMMAN CORPORATION

12. RECAST 2017 FINANCIAL INFORMATION

Our prior period financial statements were recast for the retrospective adoption of ASC Topic 606 and ASU 2017-07 as described in Note 1. The following tables summarize the effects of adopting these accounting standards on our unaudited condensed consolidated statement of earnings and comprehensive income for the three and nine months ended September 30, 2017 and unaudited condensed consolidated statement of financial position as of December 31, 2017. The adoption of ASC Topic 606 and ASU 2017-07 did not have a material impact on our unaudited condensed consolidated statements of cash flows and changes in shareholders' equity for the nine months ended September 30, 2017.

CONDENSED CONSOLIDATED STATEMENT OF EARNINGS AND COMPREHENSIVE INCOME
(Unaudited)

	Three Months Ended September 30, 2017			
$ in millions, except per share amounts	As Reported	Effect of the Adoption of ASC Topic 606	ASU 2017-07	As Adjusted
Sales				
Product	$4,135	$48	$ —	$4,183
Service	2,392	(6)	—	2,386
Total sales	6,527	42	—	6,569
Operating costs and expenses				
Product	3,153	33	3	3,189
Service	1,863	(1)	2	1,864
General and administrative expenses	666	13	—	679
Operating income	845	(3)	(5)	837
Other (expense) income				
Interest expense	(73)	—	—	(73)
Net FAS (non-service) pension benefit (expense)	—	—	2	2
Other, net	13	—	3	16
Earnings before income taxes	785	(3)	—	782
Federal and foreign income tax expense	140	(1)	—	139
Net earnings	$645	$(2)	$ —	$643
Basic earnings per share	$3.70	$(0.01)	$ —	$3.69
Weighted-average common shares outstanding, in millions	174.2	—	—	174.2
Diluted earnings per share	$3.68	$(0.01)	$ —	$3.67
Weighted-average diluted shares outstanding, in millions	175.3	—	—	175.3
Net earnings (from above)	$645	$(2)	$ —	$643
Other comprehensive income				
Change in unamortized benefit plan costs, net of tax	99	—	—	99
Change in cumulative translation adjustment	—	—	—	—
Other, net	—	—	—	—
Other comprehensive income, net of tax	99	—	—	99
Comprehensive income	$744	$(2)	$ —	$742

Table of Contents

NORTHROP GRUMMAN CORPORATION

CONDENSED CONSOLIDATED STATEMENT OF EARNINGS AND COMPREHENSIVE INCOME
(Unaudited)

	Nine Months Ended September 30, 2017			
		Effect of the Adoption of		
$ in millions, except per share amounts	As Reported	ASC Topic 606	ASU 2017-07	As Adjusted
Sales				
Product	$11,885	$332	$ —	$12,217
Service	7,284	(49)	—	7,235
Total sales	19,169	283	—	19,452
Operating costs and expenses				
Product	8,982	241	(14)	9,209
Service	5,646	(29)	(9)	5,608
General and administrative expenses	2,009	54	—	2,063
Operating income	2,532	17	23	2,572
Other (expense) income				
Interest expense	(224)	—	—	(224)
Net FAS (non-service) pension benefit (expense)	—	—	(33)	(33)
Other, net	57	—	10	67
Earnings before income taxes	2,365	17	—	2,382
Federal and foreign income tax expense	528	6	—	534
Net earnings	$1,837	$11	$ —	$1,848
Basic earnings per share	$10.53	$0.06	$ —	$10.59
Weighted-average common shares outstanding, in millions	174.5	—	—	174.5
Diluted earnings per share	$10.46	$0.06	$ —	$10.52
Weighted-average diluted shares outstanding, in millions	175.6	—	—	175.6
Net earnings (from above)	$1,837	$11	$ —	$1,848
Other comprehensive income				
Change in unamortized benefit plan costs, net of tax	300	—	—	300
Change in cumulative translation adjustment	—	—	—	—
Other, net	3	—	—	3
Other comprehensive income, net of tax	303	—	—	303
Comprehensive income	$2,140	$11	$ —	$2,151

Table of Contents

NORTHROP GRUMMAN CORPORATION

CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION
(Unaudited)

	December 31, 2017			
		Effect of the Adoption of		
$ in millions	As Reported	ASC Topic 606	ASU 2017-07	As Adjusted
Assets				
Cash and cash equivalents	$11,225	$—	$ —	$11,225
Accounts receivable, net	829	225	—	1,054
Unbilled receivables, net	3,147	318	—	3,465
Inventoried costs, net	780	(382)	—	398
Prepaid expenses and other current assets	368	77	—	445
Total current assets	16,349	238	—	16,587
Property, plant and equipment, net of accumulated depreciation of $5,066 for 2017	4,225	—	—	4,225
Goodwill	12,455	—	—	12,455
Deferred tax assets	475	(28)	—	447
Intangible assets, net	52	—	—	52
Other non-current assets	1,361	1	—	1,362
Total assets	$34,917	$211	$ —	$35,128
Liabilities				
Trade accounts payable	$1,661	$—	$ —	$1,661
Accrued employee compensation	1,382	—	—	1,382
Advance payments and amounts in excess of costs incurred	1,617	144	—	1,761
Other current liabilities	2,305	(17)	—	2,288
Total current liabilities	6,965	127	—	7,092
Long-term debt, net of current portion of $867 for 2017	14,399	—	—	14,399
Pension and other post-retirement benefit plan liabilities	5,511	—	—	5,511
Other non-current liabilities	994	—	—	994
Total liabilities	27,869	127	—	27,996
Commitments and contingencies (Note 8)				
Shareholders’ equity				
Preferred stock, $1 par value; 10,000,000 shares authorized; no shares issued and outstanding	—	—	—	—
Common stock, $1 par value; 800,000,000 shares authorized; issued and outstanding: 2017—174,085,619	174	—	—	174
Paid-in capital	44	—	—	44
Retained earnings	11,548	84	—	11,632
Accumulated other comprehensive loss	(4,718)	—	—	(4,718)
Total shareholders’ equity	7,048	84	—	7,132
Total liabilities and shareholders’ equity	$34,917	$211	$ —	$35,128

-28-

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Results of Review of Interim Financial Information

We have reviewed the accompanying condensed consolidated statement of financial position of Northrop Grumman Corporation and subsidiaries (the “Company”) as of September 30, 2018, and the related condensed consolidated statements of earnings and comprehensive income for the three-month and nine-month periods ended September 30, 2018 and 2017, and of cash flows and changes in shareholders’ equity for the nine-month periods ended September 30, 2018 and 2017, and the related notes (collectively referred to as the “interim financial information”). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying interim financial information for it to be in conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statement of financial position of Northrop Grumman Corporation and subsidiaries as of December 31, 2017, and the related consolidated statements of earnings and comprehensive income, changes in shareholders’ equity, and cash flows for the year then ended prior to retrospective adjustment for the change in the Company’s method of accounting for revenue transactions, (not presented herein); and in our report dated January 29, 2018, we expressed an unqualified opinion on those consolidated financial statements. We also audited the adjustments described in Note 1 and presented in Note 12 that were applied to retrospectively adjust the December 31, 2017 consolidated statement of financial position of the Company (not presented herein). In our opinion, such adjustments are appropriate and have been properly applied to the previously issued consolidated statement of financial position in deriving the accompanying retrospectively adjusted condensed consolidated statement of financial position as of December 31, 2017.

Basis for Review Results

This interim financial information is the responsibility of the Company’s management. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our reviews in accordance with standards of the PCAOB. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, 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.

/s/ Deloitte & Touche LLP
McLean, Virginia
October 23, 2018

Table of Contents

NORTHROP GRUMMAN CORPORATION

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

OVERVIEW

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

The following discussion should be read along with the financial statements included in this Form 10-Q, as well as our 2017 Annual Report on Form 10-K, which provides additional information on our business and the environment in which we operate and our operating results. Our 2017 results have been recast to reflect the impact of the adoption of Accounting Standards Codification (ASC) Topic 606, Revenue from Contracts with Customers, and Accounting Standards Update (ASU) No. 2017-07, Compensation Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, using the full retrospective method.

Acquisition of Orbital ATK

On June 6, 2018 (the “Merger date”), the company completed its previously announced acquisition of Orbital ATK, a global leader in aerospace and defense technologies, by acquiring all of the outstanding shares of Orbital ATK for a purchase price of $7.7 billion in cash. On the Merger date, Orbital ATK became a wholly-owned subsidiary of the company and its name was changed to Northrop Grumman Innovation Systems, Inc. We established Innovation Systems as a new, fourth business sector, whose main products include launch vehicles and related propulsion systems; missile products, subsystems and defense electronics; precision weapons, armament systems and ammunition; satellites and associated space components and services; and advanced aerospace structures. The acquisition was financed with proceeds from the company’s debt financing completed in October 2017 and cash on hand. We believe this acquisition will enable us to broaden our capabilities and offerings, provide additional innovative solutions to meet our customers’ emerging requirements, create value for shareholders and provide expanded opportunities for our combined employees. See Note 2 to the financial statements for further information regarding the acquisition of Orbital ATK.

Global Security and Economic Environment

The following is an update of events relating to the global security and economic environment since the filing of our 2017 Annual Report on Form 10-K.

The global security, geopolitical and economic environment continues to be impacted by uncertainty. During the third quarter, the environment continued to be characterized by global and regional security threats from state and non-state actors as well as terrorist organizations, diverse regional security concerns and political instability. Additionally, economic tensions and changes in international trade policies, including higher tariffs on imported goods and materials and renegotiation of free trade agreements, could impact the global market for defense products, services and solutions.

U.S. Political and Economic Environment

The following is an update of events relating to the U.S. political and economic environment since the filing of our 2017 Annual Report on Form 10-K.

On February 9, 2018, Congress passed the Bipartisan Budget Act (BBA) of 2018, which extended the continuing resolution funding the government through March 23, 2018 and raised the statutory budget caps for defense spending, including for Overseas Contingency Operations (OCO), by $80 billion for FY 2018 and by $85 billion for FY 2019. The BBA also raised non-defense spending by $63 billion for FY 2018 and $68 billion for FY 2019 and suspended the debt ceiling until March 1, 2019.

On March 23, 2018, the President signed the Omnibus Appropriations Act for FY 2018, which provides $1.3 trillion in discretionary funding for federal agencies. In total for FY 2018, Congress appropriated approximately $700 billion for national security, including approximately $630 billion for base discretionary funding and approximately $70 billion in OCO funding.

Table of Contents

NORTHROP GRUMMAN CORPORATION

On September 28, 2018, full-year appropriations for FY 2019 were enacted representing over half of discretionary federal spending. For FY 2019, Congress appropriated approximately $716 billion for national security, including approximately $647 billion for base discretionary funding and approximately $69 billion in OCO funding. A continuing resolution is in place to provide funding for other agencies (including NASA and other civil agencies) through December 7, 2018.

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

Operating Performance Assessment and Reporting

We manage and assess our business based on our performance on contracts and programs (typically larger contracts or two or more closely-related contracts). We recognize sales from our portfolio of long-term contracts as control is transferred to the customer, primarily over time on a cost-to-cost basis (cost incurred relative to cost estimated at completion). As a result, sales tend to fluctuate in concert with costs incurred across our large portfolio of contracts. Due to Federal Acquisition Regulation (FAR) rules that govern our U.S. government business and related Cost Accounting Standards (CAS), most types of costs are allocable to U.S. government contracts. As such, we do not focus on individual cost groupings (such as manufacturing, engineering and design labor, subcontractor, material, overhead and general and administrative (G&A) costs), as much as we do on total contract cost, which is the key driver of our sales and operating income.

In evaluating our operating performance, we look primarily at changes in sales and operating income. Where applicable, significant fluctuations in operating performance attributable to individual contracts or programs, or changes in a specific cost element across multiple contracts, are described in our analysis. Based on this approach and the nature of our operations, the discussion of results of operations below first focuses on our four segments before distinguishing between products and services. Changes in sales are generally described in terms of volume, while changes in margin rates are generally described in terms of performance and/or contract mix. For purposes of this discussion, volume generally refers to increases or decreases in sales or cost from production/service activity levels and performance generally refers to non-volume related changes in profitability. Contract mix generally refers to changes in the ratio of contract type and/or lifecycle (e.g., cost-type, fixed-price, development, production, and/or sustainment).

CONSOLIDATED OPERATING RESULTS

Selected financial highlights are presented in the table below:

	Three Months Ended September 30		%	Nine Months Ended September 30		%
$ in millions, except per share amounts	2018	2017	Change	2018	2017	Change
Sales	$8,085	$6,569	23 %	$21,939	$19,452	13 %
Operating costs and expenses	6,907	5,732	20 %	19,084	16,880	13 %
Operating costs and expenses as a % of sales	85.4 %	87.3 %		87.0 %	86.8 %	
Operating income	1,178	837	41 %	2,855	2,572	11 %
Operating margin rate	14.6 %	12.7 %		13.0 %	13.2 %	
Federal and foreign income tax expense	93	139	(33)%	385	534	(28)%
Effective income tax rate	7.5 %	17.8 %		13.0 %	22.4 %	
Net earnings	1,144	643	78 %	2,572	1,848	39 %
Diluted earnings per share	$6.54	$3.67	78 %	$14.68	$10.52	40 %

Sales

Current Quarter

Sales for the three months ended September 30, 2018 increased $1.5 billion, or 23 percent, as compared with the same period in 2017, due to the addition of $1.4 billion of sales from Innovation Systems and higher sales at Aerospace Systems and Mission Systems, partially offset by lower sales at Technology Services.

Year to Date

Sales for the nine months ended September 30, 2018 increased $2.5 billion, or 13 percent, as compared with the same period in 2017, due to the addition of $1.8 billion of sales from Innovation Systems and higher sales at Aerospace Systems and Mission Systems, partially offset by lower sales at Technology Services.

Table of Contents

NORTHROP GRUMMAN CORPORATION

See “Segment Operating Results” below for further information by segment and “Product and Service Analysis” for product and service detail. See Note 11 to the financial statements for information regarding the company’s sales by customer type, contract type and geographic region for each of our segments.

Operating Income

Current Quarter

Operating income for the three months ended September 30, 2018 increased $341 million, or 41 percent, as compared with the same period in 2017, primarily due to a $223 million increase in segment operating income, which includes the addition of $161 million of operating income from Innovation Systems, and a $112 million decrease in unallocated corporate expense as described in “Segment Operating Results.” Lower operating costs and expenses as a percentage of sales increased our operating margin rate to 14.6 percent from 12.7 percent and was principally driven by the previously noted decrease in unallocated corporate expense and a higher segment operating margin rate as described in “Segment Operating Results.”

G&A as a percentage of sales for the three months ended September 30, 2018 decreased to 10.1 percent from 10.3 percent in the prior year period primarily due to the inclusion of Innovation Systems.

Year to Date

Operating income for the nine months ended September 30, 2018 increased $283 million, or 11 percent, as compared with the same period in 2017, primarily due to a $264 million increase in segment operating income, which includes the addition of $200 million of operating income from Innovation Systems, and a $57 million decrease in unallocated corporate expense, partially offset by a $38 million decrease in our net FAS (service)/CAS pension adjustment as described in “Segment Operating Results.” Higher operating costs and expenses as a percentage of sales reduced our operating margin rate to 13.0 percent from 13.2 percent in the prior year period and was principally driven by the addition of Innovation Systems and the previously noted decrease in our net FAS (service)/CAS pension adjustment, partially offset by the decrease in unallocated corporate expense.

G&A as a percentage of sales for the nine months ended September 30, 2018 decreased to 10.3 percent from 10.6 percent in the prior year period primarily due to the inclusion of Innovation Systems.

For further information regarding product and service operating costs and expenses, see “Product and Service Analysis” below.

Federal and Foreign Income Taxes

Current Quarter and Year to Date

Our effective tax rate for the three and nine months ended September 30, 2018 was lower than the same periods in 2017, as discussed in Note 4 to the financial statements.

Net Earnings

Current Quarter

Net earnings for the three months ended September 30, 2018 increased $501 million, or 78 percent, as compared to the same period in 2017, primarily due to $223 million of higher segment operating income, a $133 million increase in our net FAS (non-service) pension benefit, the previously noted $112 million decrease in unallocated corporate expense and the lower effective tax rate described above. These increases were partially offset by $60 million of higher interest expense on long-term debt.

Year to Date

Net earnings for the nine months ended September 30, 2018 increased $724 million, or 39 percent, as compared with the same period in 2017, primarily due to a $413 million increase in our net FAS (non-service) pension benefit, $264 million of higher segment operating income, the lower effective tax rate described above, the previously noted $57 million decrease in unallocated corporate expense and $55 million of higher interest income on short-term investments. These increases were partially offset by $196 million of higher interest expense on long-term debt and the previously noted $38 million decrease in our net FAS (service)/CAS pension adjustment.

Diluted Earnings Per Share

Current Quarter

Diluted earnings per share for the three months ended September 30, 2018 increased $2.87, or 78 percent, as compared with the same period in 2017, primarily due to the 78 percent increase in net earnings discussed above.

Year to Date

Diluted earnings per share for the nine months ended September 30, 2018 increased $4.16, or 40 percent, as compared with the same period in 2017, primarily due to the 39 percent increase in net earnings discussed above.

Table of Contents

NORTHROP GRUMMAN CORPORATION

SEGMENT OPERATING RESULTS

Basis of Presentation

The company is aligned in four operating sectors, which also comprise our reportable segments: Aerospace Systems, Innovation Systems, Mission Systems and Technology Services. As described above, on the effective date of the Merger, we established Innovation Systems as a new, fourth business sector. The segment operating results below include sales and operating income for Innovation Systems subsequent to the Merger date.

We present our sectors in the following business areas, which are reported in a manner reflecting core capabilities:

Aerospace Systems	Innovation Systems	Mission Systems	Technology Services
Autonomous Systems	Flight Systems	Sensors and Processing	Global Logistics and Modernization
Manned Aircraft	Defense Systems	Cyber and ISR	Advanced Defense Services
Space	Space Systems	Advanced Capabilities	System Modernization and Services

This section discusses segment sales, operating income and operating margin rates. A reconciliation of segment operating income to total operating income is provided below.

Segment Operating Income and Margin Rate

Segment operating income, as reconciled in the Reconciliation of Segment Operating Income to Total Operating Income section below, is a non-GAAP (accounting principles generally accepted in the United States of America) measure that reflects total earnings from our four segments, including allocated pension expense recognized under CAS, and excluding unallocated corporate items and FAS pension expense. This measure may be useful to investors and other users of our financial statements as a supplemental measure in evaluating the financial performance and operational trends of our sectors. This measure may not be defined and calculated by other companies in the same manner and should not be considered in isolation or as an alternative to operating results presented in accordance with GAAP.

	Three Months Ended September 30		%	Nine Months Ended September 30		%
$ in millions	2018	2017	Change	2018	2017	Change
Segment operating income	$979	$756	29 %	$2,520	$2,256	12 %
Segment operating margin rate	12.1 %	11.5 %		11.5 %	11.6 %	

Current Quarter

Segment operating income for the three months ended September 30, 2018 increased $223 million, or 29 percent, as compared with the same period in 2017, and includes the addition of $161 million of operating income from Innovation Systems and higher operating income at Mission Systems and Aerospace Systems. Segment operating margin rate increased principally due to a higher segment margin rate at Mission Systems and Aerospace Systems.

Year to Date

Segment operating income for the nine months ended September 30, 2018 increased $264 million, or 12 percent, as compared with the same period in 2017, and includes the addition of $200 million of operating income from Innovation Systems and higher operating income at Aerospace Systems and Mission Systems, partially offset by lower operating income at Technology Services. Segment operating income in the prior year period included $54 million recognized in connection with a claim related to certain costs incurred in prior years (the “2017 Cost Claim”). Segment operating margin rate decreased principally due to the 2017 Cost Claim and a lower segment margin rate at Technology Services.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Reconciliation of Segment Operating Income to Total Operating Income - The table below reconciles segment operating income to total operating income by including the impact of the net FAS (service)/CAS pension adjustment, as well as unallocated corporate expense (certain corporate-level costs, which are not considered allowable or allocable under applicable CAS or FAR, and costs not considered part of management’s evaluation of segment operating performance). See Note 11 to the financial statements for further information on the net FAS (service)/CAS pension adjustment and unallocated corporate expense.

	Three Months Ended September 30		Nine Months Ended September 30	
$ in millions	2018	2017	2018	2017
Segment operating income	$979	$756	$2,520	$2,256
CAS pension expense	278	267	741	769
Less: FAS (service) pension expense	(102)	(97)	(301)	(291)
Net FAS (service)/CAS pension adjustment	176	170	440	478
Merger-related items[1]	(97)	—	(127)	—
Other unallocated corporate income (expense)	121	(88)	25	(159)
Unallocated corporate income (expense)	24	(88)	(102)	(159)
Other	(1)	(1)	(3)	(3)
Total operating income	$1,178	$837	$2,855	$2,572

(1) Merger-related items include amortization of purchased intangible assets and the additional depreciation expense related to the step-up in fair value of property, plant and equipment acquired in the Merger. These items are included in unallocated corporate expense as they are not considered part of management's evaluation of segment operating performance.

Net FAS (service)/CAS Pension Adjustment

Current Quarter

The increase in our net FAS (service)/CAS pension adjustment for the three months ended September 30, 2018, as compared with the same period in 2017, is primarily due to the addition of Innovation Systems, which more than offset a lower net FAS (service)/CAS pension adjustment at legacy Northrop Grumman resulting from lower CAS expense due to higher asset returns in 2017 and a change in the legacy Northrop Grumman mortality assumption as of December 31, 2017.

Year to Date

The decrease in our net FAS (service)/CAS pension adjustment for the nine months ended September 30, 2018, as compared with the same period in 2017, is primarily due to lower CAS expense for legacy Northrop Grumman resulting from higher asset returns in 2017 and a change in the legacy Northrop Grumman mortality assumption as of December 31, 2017, which more than offset the additional net FAS (service)/CAS pension adjustment from the addition of Innovation Systems.

Unallocated Corporate Income (Expense)

Current Quarter

Unallocated corporate expense decreased for the three months ended September 30, 2018, as compared with the same period in 2017, primarily due to a $223 million benefit recognized for the finalization of certain prior year corporate cost claims resulting in a reduction of overhead reserves and an increase in our estimated recovery of certain environmental remediation costs. This decrease was partially offset by $97 million of Merger-related costs, primarily amortization expense for purchased intangible assets and depreciation expense related to the step-up in fair value of Innovation Systems property, plant and equipment, as well as $32 million of higher deferred state taxes and legal expenses.

Year to Date

Unallocated corporate expense decreased for the nine months ended September 30, 2018, as compared with the same period in 2017, primarily due to the previously noted $223 million benefit recognized for the finalization of certain prior year corporate cost claims. This decrease was partially offset by $127 million of Merger-related costs, primarily amortization expense for purchased intangible assets and depreciation expense related to the step-up in fair value of Innovation Systems property, plant and equipment, as well as $59 million of higher deferred state taxes and legal expenses.

Table of Contents

NORTHROP GRUMMAN CORPORATION

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

	Three Months Ended September 30		Nine Months Ended September 30	
$ in millions	2018	2017	2018	2017
Favorable EAC adjustments	$296	$185	$740	$537
Unfavorable EAC adjustments	(147)	(71)	(332)	(180)
Net EAC adjustments	$149	$114	$408	$357

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

	Three Months Ended September 30		Nine Months Ended September 30	
$ in millions	2018	2017	2018	2017
Aerospace Systems	$80	$91	$229	$206
Innovation Systems(1)	16	—	16	—
Mission Systems	37	17	132	106
Technology Services	22	11	42	57
Eliminations	(6)	(5)	(11)	(12)
Net EAC adjustments	$149	$114	$408	$357

(1) Amounts reflect EAC adjustments after the percent complete on Innovation Systems contracts was reset to zero as of the Merger date.

For purposes of the discussion in the remainder of this Segment Operating Results section, references to operating income and operating margin rate reflect segment operating income and segment operating margin rate, respectively.

AEROSPACE SYSTEMS	Three Months Ended September 30		%	Nine Months Ended September 30		%
$ in millions	2018	2017	Change	2018	2017	Change
Sales	$3,282	$3,125	5 %	$9,899	$9,112	9 %
Operating income	376	344	9 %	1,074	987	9 %
Operating margin rate	11.5 %	11.0 %		10.8 %	10.8 %	

Current Quarter

Aerospace Systems sales for the three months ended September 30, 2018 increased $157 million, or 5 percent, as compared with the same period in 2017, due to higher volume on Manned Aircraft programs, as well as Autonomous Systems programs, partially offset by lower volume on Space programs. Manned Aircraft sales were driven by higher restricted, F-35 and E-2D Advanced Hawkeye volume. Autonomous Systems sales reflect higher volume on Triton, partially offset by lower Global Hawk volume. Space sales reflect lower volume on several programs, including intercompany activities, partially offset by higher Ground Based Strategic Deterrent (GBSD) Technology Maturation Risk Reduction (TMRR) volume.

Operating income for the three months ended September 30, 2018 increased $32 million, or 9 percent, primarily due to higher sales and a higher operating margin rate. Operating margin rate increased to 11.5 percent from 11.0 percent principally due to improved performance on Manned Aircraft and Autonomous Systems programs. The prior year period includes a $56 million favorable EAC adjustment.

Year to Date

Aerospace Systems sales for the nine months ended September 30, 2018 increased $787 million, or 9 percent, as compared with the same period in 2017, due to higher volume on Manned Aircraft programs, as well as Autonomous Systems programs, partially offset by lower volume on Space programs. Manned Aircraft sales were driven by higher restricted, F-35, B-2 and E-2D Advanced Hawkeye volume. Autonomous Systems sales reflect higher volume on several programs, including Triton, partially offset by lower Global Hawk volume. Space sales reflect lower

Table of Contents

intercompany and James Webb Space Telescope volume, partially offset by higher GBSD TMRR and restricted volume.

Operating income for the nine months ended September 30, 2018 increased $87 million, or 9 percent, as compared with the same period in 2017, primarily due to higher sales. Operating margin rate was comparable with the prior period and reflects $69 million of favorable EAC adjustments on multiple restricted programs recorded in 2018 and the previously noted $56 million favorable EAC adjustment recorded in 2017.

INNOVATION SYSTEMS	Three Months Ended September 30		%	Nine Months Ended September 30		%
$ in millions	2018	2017	Change	2018	2017	Change
Sales	$1,415	$ —	—	$1,815	$ —	—
Operating income	161	—	—	200	—	—
Operating margin rate	11.4 %	—		11.0 %	—	

The sales and operating income above reflect the operating results of Innovation Systems subsequent to the Merger date. For purposes of our comparative discussion below, we reference pro forma sales prepared in accordance with Article 11 of Regulation S-X and computed as if the Merger had been completed as of January 1, 2017. Refer to Note 2 to the financial statements for additional supplemental consolidated pro forma financial information. This pro forma financial information should not be considered indicative of the results that would have actually occurred if the Merger had been consummated on January 1, 2017, nor are they indicative of future results.

Current Quarter

Innovation Systems sales were $1.4 billion for the three months ended September 30, 2018 and $1.2 billion, on a pro forma basis, for the three months ended September 30, 2017. The $197 million, or 16 percent, increase reflects higher volume in each business area. Defense Systems sales reflect increased volume on armament systems and missile products programs. Flight Systems sales were primarily driven by higher volume on propulsion systems and launch vehicle programs. Space Systems sales increased primarily due to higher government satellite volume.

Year to Date

Innovation Systems sales were $4.1 billion and $3.4 billion, each on a pro forma basis, for the nine months ended September 30, 2018 and 2017, respectively. The $679 million, or 20 percent, increase reflects higher volume in each business area. Defense Systems sales reflect higher volume across multiple programs, including armament systems and small caliber systems programs. Flight Systems sales were primarily driven by higher volume on propulsion systems and aerospace structures programs. Space Systems sales increased primarily due to higher government satellite volume.

MISSION SYSTEMS	Three Months Ended September 30		%	Nine Months Ended September 30		%
$ in millions	2018	2017	Change	2018	2017	Change
Sales	$2,911	$2,836	3 %	$8,668	$8,495	2 %
Operating income	399	359	11 %	1,122	1,102	2 %
Operating margin rate	13.7 %	12.7 %		12.9 %	13.0 %	

Current Quarter

Mission Systems sales for the three months ended September 30, 2018 increased $75 million, or 3 percent, as compared with the same period in 2017, due to higher Sensors and Processing volume, partially offset by lower Advanced Capabilities and Cyber and ISR volume. Sensors and Processing sales increased principally due to higher volume on restricted programs, electro-optical/infrared self-protection programs, communications programs and F-35. Advanced Capabilities sales decreased primarily due to lower volume on the Joint National Integration Center Research and Development (JRDC) program and follow on activity, partially offset by higher volume on the Integrated Air and Missile Defense Battle Command System (IBCS) program. Cyber and ISR sales reflect ramp-down

on an ISR program.
Operating income for the three months ended September 30, 2018 increased $40 million, or 11 percent, primarily due to a higher operating margin rate and higher sales. Operating margin rate increased to 13.7 percent from 12.7 percent due to improved performance across the sector, principally on Sensors and Processing and Cyber and ISR programs.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Year to Date

Mission Systems sales for the nine months ended September 30, 2018 increased $173 million, or 2 percent, as compared with the same period in 2017, primarily due to higher Sensors and Processing volume, partially offset by lower Cyber and ISR and Advanced Capabilities volume. Sensors and Processing sales increased principally due to higher volume on restricted programs, electro-optical/infrared self-protection programs, F-35 and communications programs. Cyber and ISR sales decreased primarily due to ramp-down on an ISR program. Advanced Capabilities sales reflect lower volume on JRDC, partially offset by higher volume on several programs, including IBCS.

Operating income for the nine months ended September 30, 2018 increased $20 million, or 2 percent, as compared with the same period in 2017, primarily due to higher sales. Operating margin rate decreased to 12.9 percent from 13.0 percent principally due to a benefit recognized in the prior year period in connection with the 2017 Cost Claim, partially offset by improved performance during 2018 on Sensors and Processing and Cyber and ISR programs.

TECHNOLOGY SERVICES	Three Months Ended September 30		%	Nine Months Ended September 30		%
$ in millions	2018	2017	Change	2018	2017	Change
Sales	$1,040	$1,183	(12)%	$3,232	$3,535	(9)%
Operating income	111	124	(10)%	328	378	(13)%
Operating margin rate	10.7 %	10.5 %		10.1 %	10.7 %	

Current Quarter

Technology Services sales for the three months ended September 30, 2018 decreased $143 million, or 12 percent, as compared with the same period in 2017, due to lower volume on Advanced Defense Services and System Modernization and Services programs, partially offset by higher volume on Global Logistics and Modernization programs. Advanced Defense Services and System Modernization and Services sales decreased primarily due to the completion of several programs, including JRDC and the Virginia Information Technologies Agency (VITA) program. Global Logistics and Modernization sales increased primarily due to higher volume for several programs, including the Special Electronic Mission Aircraft (SEMA) program, partially offset by lower volume from the completion of the KC-10 program.

Operating income for the three months ended September 30, 2018 decreased $13 million, or 10 percent, primarily due to lower sales, partially offset by a higher operating margin rate. Operating margin rate increased to 10.7 percent from 10.5 percent principally due to improved performance on Global Logistics and Modernization programs.

Year to Date

Technology Services sales for the nine months ended September 30, 2018 decreased $303 million, or 9 percent, as compared with the same period in 2017, due to lower volume on Advanced Defense Services and System Modernization and Services programs, partially offset by higher volume on Global Logistics and Modernization programs. Advanced Defense Services and System Modernization and Services sales decreased primarily due to the completion of several programs, including JRDC, partially offset by higher volume on the Saudi Arabian Ministry of National Guard Training Support program (through our interest in a joint venture for which we consolidate the financial results). Global Logistics and Modernization sales increased primarily due to higher volume for several programs, including SEMA, partially offset by lower volume from the completion of the KC-10 program.

Operating income for the nine months ended September 30, 2018 decreased $50 million, or 13 percent, as compared with the same period in 2017, primarily due to lower sales and a lower operating margin rate. Operating margin rate decreased to 10.1 percent from 10.7 percent principally due to an unfavorable EAC adjustment recorded upon receipt of a notice of termination on the VITA program and a benefit recognized in the prior year period in connection with the 2017 Cost Claim.

Table of Contents

NORTHROP GRUMMAN CORPORATION

PRODUCT AND SERVICE ANALYSIS

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

$ in millions	Three Months Ended September 30				Nine Months Ended September 30			
	2018		2017		2018		2017	
Segment Information:	Sales	Operating Costs and Expenses	Sales	Operating Costs and Expenses	Sales	Operating Costs and Expenses	Sales	Operating Costs and Expenses
Aerospace Systems								
Product	$2,775	$ 2,457	$2,615	$ 2,320	$8,339	$7,436	$7,572	$6,737
Service	507	449	510	461	1,560	1,389	1,540	1,388
Innovation Systems								
Product	1,246	1,101	—	—	1,600	1,418	—	—
Service	169	153	—	—	215	197	—	—
Mission Systems								
Product	1,818	1,582	1,719	1,496	5,349	4,624	5,196	4,488
Service	1,093	930	1,117	981	3,319	2,922	3,299	2,905
Technology Services								
Product	132	119	113	103	356	325	275	254
Service	908	810	1,070	956	2,876	2,579	3,260	2,903
Segment Totals								
Total Product	$5,971	$ 5,259	$4,447	$ 3,919	$15,644	$13,803	$13,043	$11,479
Total Service	2,677	2,342	2,697	2,398	7,970	7,087	8,099	7,196
Intersegment eliminations	(563)	(495)	(575)	(504)	(1,675)	(1,471)	(1,690)	(1,479)
Total segment[1]	$8,085	$ 7,106	$6,569	$ 5,813	$21,939	$19,419	$19,452	$17,196

[1] A reconciliation of segment operating income to total operating income is included in “Segment Operating Results.”

Product Sales and Costs

Current Quarter

Product sales for the three months ended September 30, 2018 increased $1.5 billion, or 34 percent, as compared with the same period in 2017. The increase was primarily due to the addition of $1.2 billion of product sales from Innovation Systems and higher restricted and F-35 volume at Aerospace Systems.

Product costs for the three months ended September 30, 2018 increased $1.3 billion, or 34 percent, as compared with the same period in 2017, consistent with the higher product sales described above.

Year to Date

Product sales for the nine months ended September 30, 2018 increased $2.6 billion, or 20 percent, as compared with the same period in 2017. The increase was primarily due the addition of $1.6 billion of product sales from Innovation Systems and higher restricted and F-35 volume at Aerospace Systems.

Product costs for the nine months ended September 30, 2018 increased $2.3 billion, or 20 percent, as compared with the same period in 2017, consistent with the higher product sales described above.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Service Sales and Costs
Current Quarter
Service sales for the three months ended September 30, 2018 decreased $20 million, or 1 percent, as compared with the same period in 2017. The decrease was primarily due to lower service sales at Technology Services principally due to the completion of several programs, partially offset by the addition of $169 million of service sales from Innovation Systems.
Service costs for the three months ended September 30, 2018 decreased $56 million, or 2 percent, as compared with the same period in 2017, consistent with the lower service sales described above and reflects higher service margin rates at Aerospace Systems and Mission Systems principally due to improved performance.
Year to Date
Service sales for the nine months ended September 30, 2018 decreased $129 million, or 2 percent, as compared with the same period in 2017. The decrease was primarily driven by lower service sales at Technology Services principally due to the completion of several programs, partially offset by the addition of $215 million of service sales from Innovation Systems.
Service costs for the nine months ended September 30, 2018 decreased $109 million, or 2 percent, as compared with the same period in 2017, consistent with the lower service sales described above.
BACKLOG
Backlog represents the future sales we expect to recognize on firm orders received by the company and is equivalent to the company's remaining performance obligations at the end of each period. It comprises both funded backlog (firm orders for which funding is authorized and appropriated) and unfunded backlog. Unexercised contract options and indefinite delivery indefinite quantity (IDIQ) contracts are not included in backlog until the time an option or IDIQ task order is exercised or awarded. Backlog is converted into sales primarily as costs are incurred.
Company backlog as of September 30, 2018 and December 31, 2017 was $52.6 billion and $42.6 billion, respectively. As discussed in Note 1 to the financial statements, we adopted ASC Topic 606 on January 1, 2018 using the full retrospective method and applied the transition practical expedient related to backlog for reporting periods presented before the date of initial application. However, for comparative purposes, we have recast our backlog as of December 31, 2017 to reflect the impact of adoption of ASC Topic 606.
LIQUIDITY AND CAPITAL RESOURCES
We endeavor to ensure the most efficient conversion of operating income into cash for deployment in our business and to maximize shareholder value through cash deployment activities. In addition to our cash position, we use various financial measures to assist in capital deployment decision-making, including cash provided by operating activities and free cash flow, a non-GAAP measure described in more detail below.
Cash and cash equivalents and cash generated from operating activities, supplemented by borrowings under credit facilities, commercial paper and/or in the capital markets, if needed, are expected to be sufficient to fund our operations for at least the next 12 months.
Operating Cash Flow
The table below summarizes key components of cash flow provided by operating activities:

	Nine Months Ended September 30	
$ in millions	2018	2017
Net earnings	$2,572	$1,848
Non-cash items[(1)]	792	475
Changes in assets and liabilities:		
Trade working capital	(1,400)	(1,510)
Retiree benefits	(447)	235
Other, net	(67)	(42)

Net cash provided by operating activities	$1,450	$1,006

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

Table of Contents

NORTHROP GRUMMAN CORPORATION

Net cash provided by operating activities for the nine months ended September 30, 2018 increased $444 million, as compared with the same period in 2017, principally due to higher net earnings and improved trade working capital performance, partially offset by a $250 million voluntary pre-tax pension contribution ($163 million after-tax) in the third quarter of 2018.

Free Cash Flow

Free cash flow, as reconciled in the table below, is a non-GAAP measure defined as net cash provided by operating activities less capital expenditures, and may not be defined and calculated by other companies in the same manner. We use free cash flow as a key factor in our planning for, and consideration of, acquisitions, stock repurchases, and the payment of dividends. This measure may be useful to investors and other users of our financial statements as a supplemental measure of our cash performance, but should not be considered in isolation, as a measure of residual cash flow available for discretionary purposes, or as an alternative to operating cash flows presented in accordance with GAAP.

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

	Nine Months Ended September 30	
$ in millions	2018	2017
Net cash provided by operating activities	$1,450	$1,006
Less: capital expenditures	(786)	(650)
Free cash flow	$664	$356

Free cash flow for the nine months ended September 30, 2018 increased $308 million, as compared with the same period in 2017, principally due to the increase in net cash provided by operating activities described above, partially offset by higher capital expenditures at Aerospace Systems and the inclusion of Innovation Systems' capital expenditures.

Investing Cash Flow

Net cash used in investing activities for the nine months ended September 30, 2018 increased to $8.4 billion from $629 million in the prior year period principally due to $7.7 billion paid for the acquisition of Orbital ATK, net of cash acquired.

Financing Cash Flow

Net cash used in financing activities for the nine months ended September 30, 2018 increased to $3.0 billion from $1.0 billion in the prior year period. The increase was primarily due to $2.3 billion in debt repayments and $314 million in payments to credit facilities, partially offset by net commercial paper borrowings of $499 million and lower share repurchases in 2018.

Credit Facilities, Commercial Paper and Financial Arrangements - See Note 8 to the financial statements for further information on our credit facilities, commercial paper and our use of standby letters of credit and guarantees.

Share Repurchases - See Note 3 to the financial statements for further information on our share repurchase programs.

Long-term Debt - See Note 6 to the financial statements for further information.

CRITICAL ACCOUNTING POLICIES, ESTIMATES AND JUDGMENTS

There have been no material changes to our critical accounting policies, estimates or judgments from those discussed in our 2017 Annual Report on Form 10-K and as updated in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018.

ACCOUNTING STANDARDS UPDATES

See Note 1 to our financial statements for further information on accounting standards updates.

FORWARD-LOOKING STATEMENTS AND PROJECTIONS

This Form 10-Q and the information we are incorporating by reference contain statements, other than statements of historical fact, that constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "will," "expect," "intend," "may," "could," "plan," "project," "forecast,"

Table of Contents

"believe," "estimate," "outlook," "anticipate," "trends," "goals" and similar expressions generally identify these forward-looki statements.

Forward-looking statements include, among other things, statements relating to our future financial condition, results of operations and/or cash flows. Forward-looking statements are based upon assumptions, expectations, plans and projections that we believe to be reasonable when made, but which may change over time. These statements are not guarantees of future performance and inherently involve a wide range of risks and uncertainties that are difficult to predict. Specific risks that could cause actual results to differ materially from those expressed or implied in these forward-looking statements include, but are not limited to, those identified and discussed more fully in the section entitled "Risk Factors" in our 2017 Annual Report on Form 10-K, the section entitled "Risk Factors" in this report and in other filings with the Securities and Exchange Commission (SEC). They include:

- our dependence on the U.S. government for a substantial portion of our business
- significant delays or reductions in appropriations for our programs and U.S. government funding more broadly
- investigations, claims, disputes, enforcement actions and/or litigation
- the use of estimates when accounting for our contracts and the effect of contract cost growth and/or changes in estimated contract revenues and costs
- our exposure to additional risks as a result of our international business, including risks related to geopolitical and economic factors, laws and regulations
- the improper conduct of employees, agents, subcontractors, suppliers, business partners or joint ventures in which we participate and the impact on our reputation, our ability to do business, and our financial position, results of operations and/or cash flows
- cyber and other security threats or disruptions faced by us, our customers or our suppliers and other partners
- the performance and financial viability of our subcontractors and suppliers and the availability and pricing of raw materials, chemicals and components
- changes in procurement and other laws, regulations and practices applicable to our industry, findings by the U.S. government as to our compliance with such laws and regulations, and changes in our customers' business practices globally
- increased competition within our markets and bid protests
- the ability to maintain a qualified workforce
- our ability to meet performance obligations under our contracts, including obligations that are technologically complex, require certain manufacturing expertise or are dependent on factors not wholly within our control
- environmental matters, including unforeseen environmental costs and government and third party claims
- natural and/or environmental disasters
- the adequacy and availability of our insurance coverage, customer indemnifications or other liability protections
- products and services we provide related to hazardous and high risk operations, which subject us to various environmental, regulatory, financial, reputational and other risks
- the future investment performance of plan assets, changes in actuarial assumptions associated with our pension and other post-retirement benefit plans and legislative or other regulatory actions impacting our pension, post-retirement and health and welfare plans
- our ability successfully to integrate the Orbital ATK business and realize fully the anticipated benefits of the acquisition, without adverse consequences
- our ability to exploit or protect intellectual property rights
- our ability to develop new products and technologies and maintain technologies, facilities, and equipment to win new competitions and meet the needs of our customers
- the components, production and use of certain of our products involve hazardous and significant risks

Table of Contents

NORTHROP GRUMMAN CORPORATION

- changes in business conditions that could impact business investments and/or recorded goodwill or the value of other long-lived assets
- unanticipated changes in our tax provisions or exposure to additional tax liabilities
- qualification of the Alliant Techsystems Inc. spin-off of Vista Outdoor Inc. as a tax-free transaction

Additional information regarding these risks and other important factors can be found in the section entitled “Risk Factors” in our 2017 Annual Report on Form 10-K, the section entitled “Risk Factors” in this report and from time to time in our other filings with the SEC.

You are urged to consider the limitations on, and risks associated with, forward-looking statements and not unduly rely on the accuracy of forward-looking statements. These forward-looking statements speak only as of the date this report is first filed or, in the case of any document incorporated by reference, the date of that document. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

CONTRACTUAL OBLIGATIONS

There have been no material changes to our contractual obligations from those discussed in our 2017 Annual Report on Form 10-K and as updated in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes to our market risks from those discussed in our 2017 Annual Report on Form 10-K and as updated in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018.

Item 4. Controls and Procedures

DISCLOSURE CONTROLS AND PROCEDURES

Our principal executive officer (Chairman and Chief Executive Officer) and principal financial officer (Corporate Vice President and Chief Financial Officer) have evaluated the company’s disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) of the Securities Exchange Act of 1934 (the Exchange Act)) as of September 30, 2018, and have concluded that these controls and procedures are effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. These disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in the reports that we file or submit is accumulated and communicated to management, including the principal executive officer and the principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

As previously discussed, we completed our acquisition of Orbital ATK during the second quarter of 2018 (see Note 2 to the financial statements). We are in the process of integrating certain controls and related procedures for legacy Orbital ATK with those of legacy Northrop Grumman. Other than integrating such controls, during the three months ended September 30, 2018, no change occurred in our internal control over financial reporting that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

NORTHROP GRUMMAN CORPORATION

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We have provided information about certain legal proceedings in which we are involved in our 2017 Annual Report on Form 10-K, and updated that information in Notes 7 and 8 to the financial statements.

We are a party to various investigations, lawsuits, claims, enforcement actions and other legal proceedings, including government investigations and claims, that arise in the ordinary course of our business. These types of matters could result in administrative, civil or criminal fines, penalties or other sanctions (which terms include judgments or convictions and consent or other voluntary decrees or agreements); compensatory, treble or other damages; non-monetary relief or actions; or other liabilities. Government regulations provide that certain allegations against a contractor may lead to suspension or debarment from future government contracts or suspension of export privileges for the company or one or more of its components. The nature of legal proceedings is such that we cannot assure the outcome of any particular matter. However, based on information available to us to date and other than as noted in our 2017 Annual Report on Form 10-K, as updated by Notes 7 and 8 to the financial statements in this report, we do not believe that the outcome of any matter currently pending against the company is likely to have a material adverse effect on the company's unaudited condensed consolidated financial position as of September 30, 2018 or its annual results of operations and/or cash flows. For further information on the risks we face from existing and future investigations, lawsuits, claims, enforcement actions and other legal proceedings, please see "Risk Factors" in our 2017 Annual Report on Form 10-K and in this Form 10-Q.

Item 1A. Risk Factors

For a discussion of our risk factors please see the section entitled "Risk Factors" in our 2017 Annual Report on Form 10-K and the section entitled "Risk Factors" in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018.

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

Purchases of Equity Securities – The table below summarizes our repurchases of common stock during the three months ended September 30, 2018:

Period	Total Number of Shares Purchased	Average Price Paid per Share[(1)]	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased under the Plans or Programs ($ in millions)
June 30, 2018 - July 27, 2018	206,712	$ 311.44	206,712	$ 2,233
July 28, 2018 - August 24, 2018	155,221	295.64	155,221	2,187
August 25, 2018 - September 28, 2018	178,325	304.66	178,325	2,133
Total	540,258	$ 304.66	540,258	$ 2,133

(1) Includes commissions paid.

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

See Note 3 to the financial statements for further information on our share repurchase programs.

Item 3. Defaults Upon Senior Securities

No information is required in response to this item.

Item 4. Mine Safety Disclosures

No information is required in response to this item.

Item 5. Other Information

No information is required in response to this item.

Table of Contents

NORTHROP GRUMMAN CORPORATION

Item 6. Exhibits

2.1	Agreement and Plan of Merger among Titan II, Inc. (formerly Northrop Grumman Corporation), Northrop Grumman Corporation (formerly New P, Inc.) and Titan Merger Sub Inc., dated March 30, 2011 (incorporated by reference to Exhibit 10.1 to Form 8-K filed April 4, 2011, File No. 001-16411)
2.2	Separation and Distribution Agreement dated as of March 29, 2011, among Titan II, Inc. (formerly Northrop Grumman Corporation), Northrop Grumman Corporation (formerly New P, Inc.), Huntington Ingalls Industries, Inc., Northrop Grumman Shipbuilding, Inc. and Northrop Grumman Systems Corporation (incorporated by reference to Exhibit 10.2 to Form 8-K filed April 4, 2011, File No. 001-16411)
2.3	Agreement and Plan of Merger, dated as of September 17, 2017, among Northrop Grumman Corporation, Neptune Merger, Inc. and Orbital ATK, Inc. (incorporated by reference to Exhibit 2.1 to Form 8-K filed September 18, 2017)
2.4	Transaction Agreement, dated as of April 28, 2014, among Alliant Techsystems Inc., Vista Spinco Inc., Vista Merger Sub Inc. and Orbital Sciences Corporation (incorporated by reference to Exhibit 2.1 to Alliant Techsystems Inc. (now known as Northrop Grumman Innovation Systems, Inc.) Form 8-K filed May 2, 2014)
10.1	Credit Agreement, dated as of August 17, 2018, among Northrop Grumman Corporation, as borrower, Northrop Grumman Systems Corporation, as guarantor, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to Form 8-K filed August 17, 2018)
+10.2	Modified Terms and Conditions Applicable to 2018 Restricted Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.1 to Form 8-K filed September 21, 2018)
+10.3	Modified Terms and Conditions Applicable to 2018 Restricted Performance Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.2 to Form 8-K filed September 21, 2018)
+10.4	Modified Terms and Conditions Applicable to 2017 Restricted Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.3 to Form 8-K filed September 21, 2018)
+10.5	Modified Terms and Conditions Applicable to 2017 Restricted Performance Stock Rights Granted Under the 2011 Long-Term Incentive Stock Plan (incorporated by reference to Exhibit 10.4 to Form 8-K filed September 21, 2018)
*12(a)	Computation of Ratio of Earnings to Fixed Charges
*15	Letter from Independent Registered Public Accounting Firm
*31.1	Certification of Wesley G. Bush pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
*31.2	Certification of Kenneth L. Bedingfield pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
**32.1	Certification of Wesley G. Bush pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

**32.2	Certification of Kenneth L. Bedingfield pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
*101	Northrop Grumman Corporation Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, formatted in XBRL (Extensible Business Reporting Language): (i) the Condensed Consolidated Statements of Earnings and Comprehensive Income, (ii) Condensed Consolidated Statements of Financial Position, (iii) Condensed Consolidated Statements of Cash Flows, (iv) Condensed Consolidated Statements of Changes in Shareholders' Equity, and (v) Notes to Condensed Consolidated Financial Statements

Table of Contents

NORTHROP GRUMMAN CORPORATION

+ Management contract or compensatory plan or arrangement

* Filed with this report

** Furnished with this report

Table of Contents

NORTHROP GRUMMAN CORPORATION

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NORTHROP GRUMMAN CORPORATION
(Registrant)

By: /s/ Michael A. Hardesty

Michael A. Hardesty
Corporate Vice President, Controller and
Chief Accounting Officer
(Principal Accounting Officer)

Date: October 23, 2018