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

FORM 10-Q

(Mark One)

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

For the quarterly period ended **June 30, 2019**

or

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

For the transition period from __________ to __________

Commission file number **1-442**

THE BOEING COMPANY

(Exact name of registrant as specified in its charter)

Delaware	**91-0425694**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
100 N. Riverside Plaza, Chicago, IL	**60606-1596**
(Address of principal executive offices)	**(Zip Code)**

(312) 544-2000

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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. (Check one):

Large Accelerated Filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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. ☐

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

Yes ☐ No ☒

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $5.00 Par Value	**BA**	**New York Stock Exchange**

As of July 17, 2019 , there were 562,710,008 shares of common stock, $5.00 par value, issued and outstanding.

THE BOEING COMPANY
FORM 10-Q
For the Quarter Ended June 30, 2019

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Part I. Financial Information

Item 1. Financial Statements

The Boeing Company and Subsidiaries
Condensed Consolidated Statements of Operations
(Unaudited)

(Dollars in millions, except per share data)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Sales of products	**$33,319**	$42,385	**$13,094**	$21,565
Sales of services	**5,349**	5,255	**2,657**	2,693
Total revenues	**38,668**	47,640	**15,751**	24,258
Cost of products	**(31,910)**	(34,252)	**(15,672)**	(17,436)
Cost of services	**(4,511)**	(4,075)	**(2,122)**	(2,083)
Boeing Capital interest expense	**(34)**	(33)	**(16)**	(17)
Total costs and expenses	**(36,455)**	(38,360)	**(17,810)**	(19,536)
	2,213	9,280	**(2,059)**	4,722
Income/(loss) from operating investments, net	**5**	80	**(15)**	6
General and administrative expense	**(1,856)**	(2,191)	**(672)**	(1,194)
Research and development expense, net	**(1,692)**	(1,591)	**(826)**	(827)
Gain on dispositions, net	**300**	7	**192**	3
(Loss)/earnings from operations	**(1,030)**	5,585	**(3,380)**	2,710
Other income/(loss), net	**213**	51	**107**	(15)
Interest and debt expense	**(277)**	(211)	**(154)**	(109)
(Loss)/earnings before income taxes	**(1,094)**	5,425	**(3,427)**	2,586
Income tax benefit/(expense)	**301**	(752)	**485**	(390)
Net (loss)/earnings	**($793)**	$4,673	**($2,942)**	$2,196
Basic (loss)/earnings per share	**($1.40)**	$7.97	**($5.21)**	$3.77
Diluted (loss)/earnings per share	**($1.40)**	$7.88	**($5.21)**	$3.73
Weighted average diluted shares (millions)	**566.6**	592.9	**565.3**	588.7

See Notes to the Condensed Consolidated Financial Statements.

The Boeing Company and Subsidiaries
Condensed Consolidated Statements of Comprehensive Income
(Unaudited)

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Net (loss)/earnings	**($793)**	$4,673	**($2,942)**	$2,196
Other comprehensive income, net of tax:				
Currency translation adjustments	**(2)**	(57)	**(3)**	(84)
Unrealized gain on certain investments, net of tax of $0, ($1), $0 and ($1)	**1**	3		1
Unrealized (loss)/gain on derivative instruments:				
Unrealized loss arising during period, net of tax of $5, $26, $8 and $26	**(17)**	(93)	**(28)**	(91)
Reclassification adjustment for (gains)/losses included in net earnings, net of tax of $1, ($2), $0 and ($1)	**(3)**	10	**(1)**	6
Total unrealized (loss)/gain on derivative instruments, net of tax	**(20)**	(83)	**(29)**	(85)
Defined benefit pension plans and other postretirement benefits:				
Amortization of prior service credits included in net periodic pension cost, net of tax of $13, $20, $7 and $10	**(45)**	(71)	**(22)**	(35)
Net actuarial gain arising during the period, net of tax of $0, $0, $0 and $0		1		1
Amortization of actuarial losses included in net periodic pension cost, net of tax of ($65), ($122), ($33) and ($62)	**233**	438	**115**	219
Settlements and curtailments included in net income, net of tax of $0, ($3), $0 and ($3)		6		6
Pension and postretirement cost related to our equity method investments, net of tax of ($2), $1, $0 and $0	**8**	(3)		
Total defined benefit pension plans and other postretirement benefits, net of tax	**196**	371	**93**	191
Other comprehensive income, net of tax	**175**	234	**61**	23
Comprehensive loss related to noncontrolling interests	**(7)**	(10)	**(7)**	(9)
Comprehensive (loss)/income, net of tax	**($625)**	$4,897	**($2,888)**	$2,210

See Notes to the Condensed Consolidated Financial Statements.

The Boeing Company and Subsidiaries
Condensed Consolidated Statements of Financial Position
(Unaudited)

(Dollars in millions, except per share data)	**June 30 2019**	December 31 2018
Assets		
Cash and cash equivalents	**$9,167**	$7,637
Short-term and other investments	**439**	927
Accounts receivable, net	**3,291**	3,879
Unbilled receivables, net	**10,247**	10,025
Current portion of customer financing, net	**171**	460
Inventories	**68,492**	62,567
Other current assets	**3,304**	2,335
Total current assets	**95,111**	87,830
Customer financing, net	**2,139**	2,418
Property, plant and equipment, net of accumulated depreciation of $18,855 and $18,568	**12,601**	12,645
Goodwill	**8,051**	7,840
Acquired intangible assets, net	**3,761**	3,429
Deferred income taxes	**357**	284
Investments	**1,142**	1,087
Other assets, net of accumulated amortization of $523 and $503	**3,099**	1,826
Total assets	**$126,261**	$117,359
Liabilities and equity		
Accounts payable	**$15,267**	$12,916
Accrued liabilities	**20,042**	14,808
Advances and progress billings	**52,523**	50,676
Short-term debt and current portion of long-term debt	**4,357**	3,190
Total current liabilities	**92,189**	81,590
Deferred income taxes		1,736
Accrued retiree health care	**4,486**	4,584
Accrued pension plan liability, net	**14,831**	15,323
Other long-term liabilities	**4,839**	3,059
Long-term debt	**14,859**	10,657
Shareholders' equity:		
Common stock, par value $5.00 – 1,200,000,000 shares authorized; 1,012,261,159 shares issued	**5,061**	5,061
Additional paid-in capital	**6,638**	6,768
Treasury stock, at cost - 449,558,553 and 444,619,970 shares	**(54,932)**	(52,348)
Retained earnings	**52,819**	55,941
Accumulated other comprehensive loss	**(14,908)**	(15,083)
Total shareholders' equity	**(5,322)**	339
Noncontrolling interests	**379**	71
Total equity	**(4,943)**	410
Total liabilities and equity	**$126,261**	$117,359

See Notes to the Condensed Consolidated Financial Statements.

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The Boeing Company and Subsidiaries
Condensed Consolidated Statements of Cash Flows
(Unaudited)

(Dollars in millions)	Six months ended June 30	
	2019	2018
Cash flows – operating activities:		
Net (loss)/earnings	**($793)**	$4,673
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Non-cash items –		
Share-based plans expense	**104**	98
Depreciation and amortization	**1,067**	1,008
Investment/asset impairment charges, net	**70**	44
Customer financing valuation adjustments	**249**	(2)
Gain on dispositions, net	**(300)**	(7)
Other charges and credits, net	**145**	112
Changes in assets and liabilities –		
Accounts receivable	**588**	62
Unbilled receivables	**(222)**	(1,675)
Advances and progress billings	**1,842**	2,931
Inventories	**(5,233)**	408
Other current assets	**(887)**	2
Accounts payable	**2,002**	682
Accrued liabilities	**4,959**	(922)
Income taxes receivable, payable and deferred	**(921)**	269
Other long-term liabilities	**(509)**	(65)
Pension and other postretirement plans	**(390)**	(57)
Customer financing, net	**347**	(97)
Other	**80**	352
Net cash provided by operating activities	**2,198**	7,816
Cash flows – investing activities:		
Property, plant and equipment additions	**(922)**	(770)
Property, plant and equipment reductions	**331**	41
Acquisitions, net of cash acquired	**(492)**	
Contributions to investments	**(496)**	(1,537)
Proceeds from investments	**758**	1,028
Purchase of distribution rights	**(20)**	(56)
Other	**(12)**	(1)
Net cash used by investing activities	**(853)**	(1,295)
Cash flows – financing activities:		
New borrowings	**11,670**	3,648
Debt repayments	**(6,422)**	(2,708)
Contributions from noncontrolling interests	**7**	20
Stock options exercised	**47**	61
Employee taxes on certain share-based payment arrangements	**(238)**	(236)
Common shares repurchased	**(2,651)**	(5,965)
Dividends paid	**(2,317)**	(1,997)
Net cash provided/(used) by financing activities	**96**	(7,177)
Effect of exchange rate changes on cash and cash equivalents, including restricted	**(2)**	(36)
Net increase/(decrease) in cash & cash equivalents, including restricted	**1,439**	(692)
Cash & cash equivalents, including restricted, at beginning of year	**7,813**	8,887
Cash & cash equivalents, including restricted, at end of period	**9,252**	8,195
Less restricted cash & cash equivalents, included in Investments	**85**	74
Cash and cash equivalents at end of period	**$9,167**	$8,121

See Notes to the Condensed Consolidated Financial Statements.

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The Boeing Company and Subsidiaries
Condensed Consolidated Statements of Equity
For the six months ended June 30, 2019 and 2018
(Unaudited)

	Boeing shareholders						
(Dollars in millions, except per share data)	Common Stock	Additional Paid-In Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Non-controlling Interests	Total
Balance at January 1, 2018	$5,061	$6,804	($43,454)	$49,618	($16,373)	$57	$1,713
Net earnings				4,673		(10)	4,663
Other comprehensive income, net of tax of ($81)					234		234
Share-based compensation and related dividend equivalents		115		(17)			98
Treasury shares issued for stock options exercised, net		(32)	95				63
Treasury shares issued for other share-based plans, net		(211)	(18)				(229)
Common shares repurchased			(5,965)				(5,965)
Cash dividends declared ($3.42 per share)				(1,971)			(1,971)
Changes in noncontrolling interests						20	20
Balance at June 30, 2018	$5,061	$6,676	($49,342)	$52,303	($16,139)	$67	($1,374)
Balance at January 1, 2019	**$5,061**	**$6,768**	**($52,348)**	**$55,941**	**($15,083)**	**$71**	**$410**
Net loss				**(793)**		**(7)**	**(800)**
Other comprehensive income, net of tax of ($48)					**175**		**175**
Share-based compensation and related dividend equivalents		**120**		**(16)**			**104**
Treasury shares issued for stock options exercised, net		**(39)**	**82**				**43**
Treasury shares issued for other share-based plans, net		**(211)**	**(15)**				**(226)**
Common shares repurchased			**(2,651)**				**(2,651)**
Cash dividends declared ($4.11 per share)				**(2,313)**			**(2,313)**
Changes in noncontrolling interests						**315**	**315**
Balance at June 30, 2019	**$5,061**	**$6,638**	**($54,932)**	**$52,819**	**($14,908)**	**$379**	**($4,943)**

See Notes to the Condensed Consolidated Financial Statements.

The Boeing Company and Subsidiaries
Condensed Consolidated Statements of Equity
For the three months ended June 30, 2019 and 2018
(Unaudited)

(Dollars in millions, except per share data)	Boeing shareholders Common Stock	Additional Paid-In Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Non-controlling Interests	Total
Balance at April 1, 2018	$5,061	$6,624	($46,396)	$52,095	($16,162)	$76	$1,298
Net earnings				2,196		(9)	2,187
Other comprehensive income, net of tax of ($31)					23		23
Share-based compensation and related dividend equivalents		70		(17)			53
Treasury shares issued for stock options exercised, net		(7)	20				13
Treasury shares issued for other share-based plans, net		(11)	(1)				(12)
Common shares repurchased			(2,965)				(2,965)
Cash dividends declared ($3.42 per share)				(1,971)			(1,971)
Balance at June 30, 2018	$5,061	$6,676	($49,342)	$52,303	($16,139)	$67	($1,374)
Balance at April 1, 2019	**$5,061**	**$6,573**	**($54,630)**	**$58,090**	**($14,969)**	**$107**	**$232**
Net loss				**(2,942)**		**(7)**	**(2,949)**
Other comprehensive income, net of tax of ($18)					**61**		**61**
Share-based compensation and related dividend equivalents		**73**		**(16)**			**57**
Treasury shares issued for stock options exercised, net		**(3)**	**5**				**2**
Treasury shares issued for other share-based plans, net		**(5)**	**3**				**(2)**
Common shares repurchased			**(310)**				**(310)**
Cash dividends declared ($4.11 per share)				**(2,313)**			**(2,313)**
Changes in noncontrolling interests						**279**	**279**
Balance at June 30, 2019	**$5,061**	**$6,638**	**($54,932)**	**$52,819**	**($14,908)**	**$379**	**($4,943)**

See Notes to the Condensed Consolidated Financial Statements.

The Boeing Company and Subsidiaries
Notes to Condensed Consolidated Financial Statements
Summary of Business Segment Data
(Unaudited)

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Revenues:				
Commercial Airplanes	**$16,544**	$26,897	**$4,722**	$13,952
Defense, Space & Security	**13,223**	12,581	**6,612**	6,100
Global Services	**9,162**	8,047	**4,543**	4,097
Boeing Capital	**141**	137	**75**	72
Unallocated items, eliminations and other	**(402)**	(22)	**(201)**	37
Total revenues	**$38,668**	$47,640	**$15,751**	$24,258
(Loss)/earnings from operations:				
Commercial Airplanes	**($3,773)**	$3,197	**($4,946)**	$1,785
Defense, Space & Security	**1,822**	1,133	**975**	376
Global Services	**1,340**	1,251	**687**	604
Boeing Capital	**57**	44	**37**	24
Segment operating (loss)/profit	**(554)**	5,625	**(3,247)**	2,789
Unallocated items, eliminations and other	**(1,205)**	(722)	**(498)**	(396)
FAS/CAS service cost adjustment	**729**	682	**365**	317
(Loss)/earnings from operations	**(1,030)**	5,585	**(3,380)**	2,710
Other income/(loss), net	**213**	51	**107**	(15)
Interest and debt expense	**(277)**	(211)	**(154)**	(109)
(Loss)/earnings before income taxes	**(1,094)**	5,425	**(3,427)**	2,586
Income tax benefit/(expense)	**301**	(752)	**485**	(390)
Net (loss)/earnings	**($793)**	$4,673	**($2,942)**	$2,196

This information is an integral part of the Notes to the Condensed Consolidated Financial Statements. See Note 20 for further segment results.

The Boeing Company and Subsidiaries
Notes to the Condensed Consolidated Financial Statements
(Dollars in millions, except per share data)
(Unaudited)

Note 1 – Basis of Presentation

The condensed consolidated interim financial statements included in this report have been prepared by management of The Boeing Company (herein referred to as “Boeing”, the “Company”, “we”, “us”, or “our”). In the opinion of management, all adjustments (consisting of normal recurring accruals) necessary for a fair presentation are reflected in the interim financial statements. The results of operations for the period ended June 30, 2019 are not necessarily indicative of the operating results for the full year. The interim financial statements should be read in conjunction with the audited Consolidated Financial Statements, including the notes thereto, included in our 2018 Annual Report on Form 10-K. Certain amounts in prior periods have been adjusted to conform with the current year presentation.

Standards Issued and Implemented

In the first quarter of 2019, we adopted Accounting Standards Update (ASU) 2016-02, Leases (Topic 842) and recognized on our Condensed Consolidated Statement of Financial Position $1,064 of lease liabilities with corresponding right-of-use assets for operating leases. Our accounting for finance leases and lessor contracts remains substantially unchanged. The standard has no impact to cash provided or used by operating, investing, or financing activities on our Condensed Consolidated Statements of Cash Flows. As permitted under the standard, we elected prospective application of the new guidance and prior periods continue to be presented in accordance with Topic 840. Refer to our 2018 Annual Report on Form 10-K for disclosures required by Topic 840. We also elected the package of practical expedients, which among other things, does not require reassessment of lease classification.

In the first quarter of 2019, we adopted ASU 2017-12, Derivatives and Hedging (Topic 815), using the modified retrospective method. The standard refines and simplifies hedge accounting requirements for both financial and commodity risks. The impact of the adoption was not material. See Note 17 for additional disclosures.

Significant Accounting Policies - Update

Our significant accounting policies are described in "Note 1: Summary of Significant Accounting Policies" of our Annual Report on Form 10-K for the year ended December 31, 2018 . Our updated significant accounting policies described below reflect the impact of adopting Topic 842.

Leases We determine if an arrangement is, or contains, a lease at the inception date. Operating leases are included in Other assets, with the related liabilities included in Accrued liabilities and Other long-term liabilities. Assets under finance leases are included in Property, plant and equipment, net, with the related liabilities included in Short-term debt and current portion of long-term debt and Long-term debt on the Condensed Consolidated Statements of Financial Position.

Operating lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease assets and liabilities are recognized at the lease commencement date based on the estimated present value of lease payments over the lease term. We use our estimated incremental borrowing rate in determining the present value of lease payments. Variable components of the lease payments such as fair market value adjustments, utilities, and maintenance costs are expensed as incurred and not included in determining the present value. Our lease terms include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense is recognized on a straight-line basis over the lease term.

We have lease agreements with lease and non-lease components which are accounted for as a single lease component.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Changes in estimated revenues, cost of sales and the related effect on operating income are recognized using a cumulative catch-up adjustment which recognizes in the current period the cumulative effect of the changes on current and prior periods based on a long-term contract's percentage-of-completion. When the current estimates of total sales and costs for a long-term contract indicate a loss, a provision for the entire reach-forward loss on the long-term contract is recognized.

Net cumulative catch-up adjustments to prior years' revenue and earnings, including certain reach-forward losses, across all long-term contracts were as follows:

(In millions - except per share amounts)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Increase/(decrease) to Revenue	**$229**	$45	**$69**	($72)
Increase/(decrease) to Earnings from Operations	**$175**	($159)	**$28**	($237)
Increase/(decrease) to Diluted EPS	**$0.22**	($0.23)	**$0.04**	($0.34)

Note 2 – Acquisitions and Joint Ventures

Strategic Partnership with Embraer

During the first quarter of 2019, we entered into definitive transaction documents with respect to a strategic partnership with Embraer S.A. (Embraer). The partnership contemplates that the parties enter into a joint venture comprising the commercial aircraft and services operations of Embraer, in which Boeing will acquire an 80 percent ownership stake for $4,200 , as well as a joint venture to promote and develop new markets for the multi-mission medium airlift KC-390, in which Boeing will hold a 49 percent ownership stake. Embraer shareholders approved the transaction, which remains subject to regulatory approvals and other customary closing conditions. Assuming approvals are received in a timely manner, the transaction is expected to close by the end of 2019. If the transaction is not completed due to failure to obtain antitrust approvals, we would be required to pay a termination fee of $100 .

Note 3 – Earnings Per Share

Basic and diluted earnings per share are computed using the two-class method, which is an earnings allocation method that determines earnings per share for common shares and participating securities. The undistributed earnings are allocated between common shares and participating securities as if all earnings had been distributed during the period. Participating securities and common shares have equal rights to undistributed earnings.

Basic earnings per share is calculated by taking net earnings, less earnings available to participating securities, divided by the basic weighted average common shares outstanding.

Diluted earnings per share is calculated by taking net earnings, less earnings available to participating securities, divided by the diluted weighted average common shares outstanding.

The elements used in the computation of basic and diluted earnings per share were as follows:

(In millions - except per share amounts)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Net (loss)/earnings	**($793)**	$4,673	**($2,942)**	$2,196
Less: earnings available to participating securities		3		
Net (loss)/earnings available to common shareholders	**($793)**	$4,670	**($2,942)**	$2,196
Basic				
Basic weighted average shares outstanding	**566.6**	586.6	**565.3**	582.6
Less: participating securities	**0.6**	0.6	**0.6**	0.7
Basic weighted average common shares outstanding	**566.0**	586.0	**564.7**	581.9
Diluted				
Basic weighted average shares outstanding	**566.6**	586.6	**565.3**	582.6
Dilutive potential common shares [(1)]		6.3		6.1
Diluted weighted average shares outstanding	**566.6**	592.9	**565.3**	588.7
Less: participating securities	**0.6**	0.6	**0.6**	0.7
Diluted weighted average common shares outstanding	**566.0**	592.3	**564.7**	588.0
Net (loss)/earnings per share:				
Basic	**($1.40)**	$7.97	**($5.21)**	$3.77
Diluted	**(1.40)**	7.88	**(5.21)**	3.73

(1) Diluted earnings per share includes any dilutive impact of stock options, restricted stock units, performance-based restricted stock units and performance awards.

As a result of incurring a net loss for the six and three months ended June 30, 2019 , potential common shares of 4.4 million and 4.0 million were excluded from diluted loss per share because the effect would have been antidilutive. In addition, the following table includes the number of shares that may be dilutive potential common shares in the future. These shares were not included in the computation of diluted earnings/(loss) per share because the effect was either antidilutive or the performance condition was not met.

(Shares in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Performance awards	**2.7**	2.8	**2.7**	2.7
Performance-based restricted stock units	**0.6**	0.3	**0.6**	0.1

Note 4 – Income Taxes

Our effective income tax rates were 27.5% and 14.2% for the six and three months ended June 30, 2019 and 13.9% and 15.1% for the same periods in the prior year. The tax rates in 2019 and 2018 reflect the U.S. federal tax rate of 21% reduced by tax benefits associated with intangible income derived from serving non-U.S. markets, research and development tax credits and excess tax benefits related to share-based payments. The tax rates in 2019 differ from 2018 primarily due to the tax benefits recorded in 2019 as a result of pre-tax losses.

Federal income tax audits have been settled for all years prior to 2015. The Internal Revenue Service (IRS) began the 2015-2017 federal tax audit in the first quarter of 2019. We are also subject to examination in major state and international jurisdictions for the 2001-2017 tax years. We believe appropriate provisions for all outstanding tax issues have been made for all jurisdictions and all open years.

Audit outcomes and the timing of audit settlements are subject to significant uncertainty. It is reasonably possible that within the next 12 months unrecognized tax benefits related to state matters under audit may decrease by up to $470 based on current estimates.

Note 5 – Inventories

Inventories consisted of the following:

	June 30 2019	December 31 2018
Long-term contracts in progress	**$857**	$2,129
Commercial aircraft programs	**58,691**	52,753
Commercial spare parts, used aircraft, general stock materials and other	**8,944**	7,685
Total	**$68,492**	$62,567

Long-Term Contracts in Progress

Long-term contracts in progress includes Delta launch program inventory that is being sold at cost to United Launch Alliance (ULA) under an inventory supply agreement that terminates on March 31, 2021. The inventory balance was $193 and $227 at June 30, 2019 and December 31, 2018 . See indemnifications to ULA in Note 12 .

Included in inventories are capitalized precontract costs of $727 at June 30, 2019 and $644 at December 31, 2018 primarily related to the KC-46A Tanker. See Note 11 .

Commercial Aircraft Programs

At June 30, 2019 and December 31, 2018 , commercial aircraft programs inventory included the following amounts related to the 787 program: $26,750 and $27,852 of work in process (including deferred production costs of $20,969 and $22,967), $2,323 and $2,453 of supplier advances, and $2,354 and $2,638 of unamortized tooling and other non-recurring costs. At June 30, 2019 , $15,297 of 787 deferred production costs, unamortized tooling and other non-recurring costs are expected to be recovered from units included in the program accounting quantity that have firm orders and $8,026 is expected to be recovered from units included in the program accounting quantity that represent expected future orders.

At June 30, 2019 and December 31, 2018 , commercial aircraft programs inventory included $1,507 and $463 of deferred production costs and $517 and $471 of unamortized tooling and other non-recurring costs related to the 737 program. At June 30, 2019 , $2,021 of 737 deferred production costs, unamortized tooling and other non-recurring costs are expected to be recovered from units included in the program accounting quantity that have firm orders and $3 is expected to be recovered from units included in the program accounting quantity that represent expected future orders.

Commercial aircraft programs inventory included amounts credited in cash or other consideration (early issue sales consideration) to airline customers totaling $2,718 and $2,844 at June 30, 2019 and December 31, 2018 .

Note 6 – Contracts with Customers

Unbilled receivables increased from $10,025 at December 31, 2018 to $10,247 at June 30, 2019 , primarily driven by revenue recognized at BDS and BGS in excess of billings .

Advances and progress billings increased from $50,676 at December 31, 2018 to $52,523 at June 30, 2019 , primarily driven by advances on orders received in excess of revenue recognized at BCA, BDS and BGS.

Revenues recognized during the six months ended June 30, 2019 and 2018 from amounts recorded as Advances and progress billings at the beginning of each year were $10,116 and $12,757 . Revenues recognized during the three months ended June 30, 2019 and 2018 from amounts recorded as Advances and progress billings at the beginning of each year were $4,219 and $6,304 .

Note 7 – Customer Financing

Customer financing primarily relates to the Boeing Capital (BCC) segment and consisted of the following:

	June 30 2019	December 31 2018
Financing receivables:		
Investment in sales-type/finance leases	**$1,038**	$1,125
Notes	**449**	730
Total financing receivables	**1,487**	1,855
Operating lease equipment, at cost, less accumulated depreciation of $228 and $203	**831**	782
Operative lease incentive		250
Gross customer financing	**2,318**	2,887
Less allowance for losses on receivables	**(8)**	(9)
Total	**$2,310**	$2,878

We acquire aircraft to be leased to customers through trades, lease returns, purchases in the secondary market, and new aircraft transferred from our Commercial Airplanes segment. Leasing arrangements typically range in terms from 1 to 12 years and may include options to extend or terminate the lease. Certain leases include provisions to allow the lessee to purchase the underlying aircraft at a specified price. A minority of leases contain variable lease payments based on actual aircraft usage and are paid in arrears.

We determine a receivable is impaired when, based on current information and events, it is probable that we will be unable to collect amounts due according to the original contractual terms. At June 30, 2019 and December 31, 2018 , we individually evaluated for impairment customer financing receivables of $402 and $409 , of which $391 and $398 were determined to be impaired. We recorded no allowance for losses on these impaired receivables as the collateral values exceeded the carrying values of the receivables.

The adequacy of the allowance for losses is assessed quarterly. Three primary factors influencing the level of our allowance for losses on customer financing receivables are customer credit ratings, default rates and collateral values. We assign internal credit ratings for all customers and determine the creditworthiness of each customer based upon publicly available information and information obtained directly from our customers. Our rating categories are comparable to those used by the major credit rating agencies.

Our financing receivable balances by internal credit rating category are shown below:

Rating categories	**June 30 2019**	December 31 2018
BBB	**$612**	$883
BB	**349**	430
B	**128**	135
CCC	**398**	407
Total carrying value of financing receivables	**$1,487**	$1,855

At June 30, 2019 , our allowance related to receivables with ratings of B, BB and BBB. We applied default rates that averaged 22.1% , 5.8% and 0.6% , respectively, to the exposure associated with those receivables.

Customer Financing Exposure

Customer financing is collateralized by security in the related asset. The value of the collateral is closely tied to commercial airline performance and overall market conditions and may be subject to reduced valuation with market decline. Declines in collateral values could result in asset impairments, reduced finance lease income, and an increase in the allowance for losses. Our customer financing collateral is concentrated in out-of-production aircraft and 747-8 aircraft. Generally, out-of-production aircraft have experienced greater collateral value declines than in-production aircraft.

The majority of customer financing carrying values are concentrated in the following aircraft models:

	June 30 2019	December 31 2018
717 Aircraft ($194 and $204 accounted for as operating leases)	**$806**	$918
747-8 Aircraft ($129 and $132 accounted for as operating leases)	**474**	477
737 Aircraft ($256 and $263 accounted for as operating leases)	**279**	290
757 Aircraft ($23 and $24 accounted for as operating leases)	**191**	200
MD-80 Aircraft (accounted for as sales-type finance leases)	**181**	204
777 Aircraft ($142 and $60 accounted for as operating leases)	**149**	68
747-400 Aircraft ($34 and $45 accounted for as operating leases)	**99**	116

As part of selected lease transactions, Boeing may provide incentives to commercial customers. At December 31, 2018 , Customer Financing included $250 of lease incentives with one customer experiencing liquidity issues. In the first quarter of 2019, we concluded that these lease incentives were impaired and recorded a charge of $250 .

Lease income recorded in Revenue on the Condensed Consolidated Statements of Operations for the six and three months ended June 30, 2019 included $32 and $16 from sales-type/finance leases and $71 and $35 from operating leases.

As of June 30, 2019 , undiscounted cash flows for sales-type/finance and operating leases over the next five years and thereafter are as follows:

	Sales-type/finance leases	Operating leases
Year 1	**$186**	**$123**
Year 2	**141**	**99**
Year 3	**92**	**87**
Year 4	**107**	**67**
Year 5	**116**	**51**
Thereafter	**143**	**67**
Total lease receipts	**785**	**494**
Less imputed interest	**(172)**	
Estimated unguaranteed residual values	**425**	
Total	**$1,038**	**$494**

At June 30, 2019 and December 31, 2018 unguaranteed residual values remained unchanged. Guaranteed residual values at June 30, 2019 were not significant.

Note 8 – Investments

Our investments, which are recorded in Short-term and other investments or Investments, consisted of the following:

	June 30 2019	December 31 2018
Equity method investments [1]	**$1,103**	$1,048
Time deposits	**42**	255
Available for sale debt instruments	**307**	491
Equity and other investments	**44**	44
Restricted cash & cash equivalents [2]	**85**	176
Total	**$1,581**	$2,014

(1) Dividends received were $93 and $30 for the six and three months ended June 30, 2019 and $143 and $55 during the same periods in the prior year.

(2) Reflects amounts restricted in support of our workers' compensation programs, employee benefit programs, and insurance premiums.

Note 9 – Other Assets

Sea Launch

At June 30, 2019 and December 31, 2018 , Other assets included $244 of receivables related to our former investment in the Sea Launch venture which became payable by certain Sea Launch partners following Sea Launch's bankruptcy filing in June 2009. At June 30, 2019 , the net amounts owed to Boeing by each of the partners were as follows: S.P. Koroley Rocket and Space Corporation Energia of Russia (RSC Energia) – $111 , PO Yuzhnoye Mashinostroitelny Zavod of Ukraine – $89 and KB Yuzhnoye of Ukraine – $44 .

In 2013, we filed an action in the United States District Court for the Central District of California seeking reimbursement from the other Sea Launch partners. In 2016, the United States District Court for the Central District of California issued a judgment in favor of Boeing. Later that year, we reached an agreement which we believe will enable us to recover the outstanding receivable balance from RSC Energia over the next several years. We continue to pursue collection efforts against the former Ukrainian partners in connection with the court judgment. We continue to believe the partners have the financial wherewithal to pay and intend to pursue vigorously all of our rights and remedies. In the event we are unable to secure reimbursement from RSC Energia and the Ukrainian Sea Launch partners, we could incur additional charges.

Note 10 – Leases

Our operating lease assets primarily represent manufacturing and research and development facilities, warehouses, and offices. Our finance leases primarily represent computer equipment and are not significant. Total operating lease expense was $159 and $75 for six and three months ended June 30, 2019 , of which $25 and $11 was attributable to variable lease expenses.

For the six and three months ended June 30, 2019 cash payments against operating lease liabilities totaled $136 and $66 and non-cash transactions totaled $137 and $112 to recognize operating assets and liabilities for new leases.

Supplemental Condensed Consolidated Statement of Financial Position information related to leases was as follows:

	June 30 2019
Operating leases:	
Operating lease right-of-use assets	**$1,064**
Current portion of lease liabilities	**251**
Non-current portion of lease liabilities	**866**
Total operating lease liabilities	**$1,117**
Weighted average remaining lease term *(years)*	**9**
Weighted average discount rate	**3.16%**

Maturities of lease liabilities were as follows:

	Operating leases
Year 1	**$278**
Year 2	**228**
Year 3	**181**
Year 4	**147**
Year 5	**88**
Thereafter	**414**
Total lease payments	**1,336**
Less imputed interest	**(219)**
Total	**$1,117**

As of June 30, 2019 , we have entered into operating leases that have not yet commenced of $161 , primarily related to research and development and manufacturing facilities. These leases will commence between 2019 and 2020 with lease terms of 3 years to 15 years.

Note 11 – Commitments and Contingencies

737 MAX Grounding

On March 13, 2019, the Federal Aviation Administration (FAA) issued an order to suspend operations of all 737 MAX aircraft in the U.S. and by U.S. aircraft operators following two fatal 737 MAX accidents. Non-U.S. civil aviation authorities have issued directives to the same effect. We are working closely with the relevant government authorities to support both accident investigations. We are also fully cooperating with other U.S. government investigations related to the accidents. While production continues on the 737 MAX, deliveries have been suspended until clearance is granted by the appropriate regulatory authorities.

We have been developing a software update to the Maneuvering Characteristics Augmentation System (MCAS) on the 737 MAX, together with an associated pilot training and supplementary education program. We continue to work with the FAA and other regulatory agencies worldwide to develop and certify the software update and training program. Additionally, on June 26, 2019, the FAA directed us to address a specific condition of flight, unrelated to MCAS, that the planned software update did not previously address. We agreed with the FAA's decision and are currently working on the software update to address this requirement, and we will not offer the 737 MAX for certification until we have satisfied all requirements for certification and the safe return of the 737 MAX to service. Charges recognized during the first half of 2019 associated with the software updates and related pilot training were immaterial.

Prior to the grounding, Boeing had delivered 387 737 MAX aircraft of which 57 were delivered in the first quarter of 2019. On April 5, 2019, we announced plans to reduce the 737 production rate from 52 aircraft per month to 42 per month effective April 15, 2019. The resulting impacts, which were reflected in the first quarter, increased costs to produce aircraft included in the current accounting quantity by $1,016 and reduced 737 program and overall BCA segment operating margins. We are continuing to produce at 42 aircraft per month and we will continue to evaluate potential future reductions in the production rate, including a temporary shutdown in 737 production. During the second quarter of 2019, estimated costs to produce aircraft included in the current accounting quantity increased by $1,748 primarily due to higher costs associated with a longer than expected reduction in the production rate. Prior to the grounding, we expected 737 MAX deliveries to approximate 90 percent of total 737 deliveries in 2019 and we had planned to increase the production rate to 57 per month in 2019. In addition to the grounding, the timing of 737 MAX deliveries during the first quarter was adversely affected by delays in the supply chain. We may face additional costs, delays in return to service, and/or further reductions in the production rate.

The grounding has reduced revenues, operating earnings and cash flows during the first half of 2019 and will continue to adversely affect our results until deliveries resume and production rates increase. We are also working with our customers to minimize the impact to their operations. In the second quarter, we recorded an earnings charge of $5,610 , net of estimated insurance recoveries of $500 , in connection with estimated potential concessions and other considerations to customers for disruptions related to the 737 MAX grounding and associated delivery delays. This charge is reflected in the financial statements as a reduction in revenue, an increase in Other current assets and an increase in Accrued liabilities. The charge represents our best estimate of future concessions and other considerations to customers, and is necessarily based on a series of assumptions, including an assumption with respect to the timing of the 737 MAX's return to service. While the FAA and other civil aviation authorities will determine the timing and conditions of return to service, this charge assumes that regulatory approval of 737 MAX return to service in the U.S. and other jurisdictions begins early in the fourth quarter of 2019. This assumption reflects our best estimate at this time, but actual timing and conditions of return to service could differ from this estimate, the effect of which could be material. In addition, this charge assumes that we will gradually increase the 737 production rate from 42 per month to 57 per month in 2020, and that 737 MAX airplanes produced during the grounding and included within inventory will be delivered over several quarters following return to service. We are unable at this time to reasonably estimate potential future additional financial impacts or a range of loss, if any, due to continued uncertainties related to the timing and conditions of return to service, future changes to the production rate, supply chain impacts or the results of negotiations with particular customers. Any such impacts, including any changes in our estimates, could have a material adverse effect on our financial position, results of operations, and/or cash flows.

Environmental

The following table summarizes environmental remediation activity during the six months ended June 30, 2019 and 2018 .

	2019	2018
Beginning balance – January 1	**$555**	$524
Reductions for payments made	**(24)**	(8)
Changes in estimates	**17**	18
Ending balance – June 30	**$548**	$534

The liabilities recorded represent our best estimate or the low end of a range of reasonably possible costs expected to be incurred to remediate sites, including operation and maintenance over periods of up to 30 years. It is reasonably possible that we may incur charges that exceed these recorded amounts because of regulatory agency orders and directives, changes in laws and/or regulations, higher than expected costs and/or the discovery of new or additional contamination. As part of our estimating process, we develop a range of reasonably possible alternate scenarios that includes the high end of a range of reasonably possible cost estimates for all remediation sites for which we have sufficient information based on our experience and existing laws and regulations. There are some potential remediation obligations where the costs of remediation cannot be reasonably estimated. At June 30, 2019 and December 31, 2018 , the high end of the estimated range of reasonably possible remediation costs exceeded our recorded liabilities by $1,099 and $796 .

Product Warranties

The following table summarizes product warranty activity recorded during the six months ended June 30, 2019 and 2018 .

	2019	2018
Beginning balance – January 1	**$1,127**	$1,211
Additions for current year deliveries	**83**	130
Reductions for payments made	**(64)**	(72)
Changes in estimates	**(83)**	(140)
Ending balance – June 30	**$1,063**	$1,129

Commercial Aircraft Commitments

In conjunction with signing definitive agreements for the sale of new aircraft (Sale Aircraft), we have entered into trade-in commitments with certain customers that give them the right to trade in used aircraft at a specified price upon the purchase of Sale Aircraft. The probability that trade-in commitments will be exercised is determined by using both quantitative information from valuation sources and qualitative information from other sources. The probability of exercise is assessed quarterly, or as events trigger a change, and takes into consideration the current economic and airline industry environments. Trade-in commitments, which can be terminated by mutual consent with the customer, may be exercised only during the period specified in the agreement, and require advance notice by the customer.

Trade-in commitment agreements at June 30, 2019 have expiration dates from 2019 through 2026 . At June 30, 2019 , and December 31, 2018 total contractual trade-in commitments were $1,456 and $1,519 . As of June 30, 2019 and December 31, 2018 , we estimated that it was probable we would be obligated to perform on certain of these commitments with net amounts payable to customers totaling $739 and $522 and the fair value of the related trade-in aircraft was $706 and $485 .

Financing Commitments

Financing commitments related to aircraft on order, including options and those proposed in sales campaigns, and refinancing of delivered aircraft, totaled $14,277 and $19,462 as of June 30, 2019 and December 31, 2018 . The estimated earliest potential funding dates for these commitments as of June 30, 2019 are as follows:

	Total
July through December 2019	$873
2020	3,143
2021	2,994
2022	1,350
2023	2,134
Thereafter	3,783
	$14,277

As of June 30, 2019 , $14,122 of these financing commitments related to customers we believe have less than investment-grade credit. We have concluded that no reserve for future potential losses is required for these financing commitments based upon the terms, such as collateralization and interest rates, under which funding would be provided.

Funding Commitments

We have commitments to make additional capital contributions of $248 to joint ventures over the next 8 years.

Standby Letters of Credit and Surety Bonds

We have entered into standby letters of credit and surety bonds with financial institutions primarily relating to the guarantee of our future performance on certain contracts. Contingent liabilities on outstanding letters of credit agreements and surety bonds aggregated approximately $3,704 and $3,761 as of June 30, 2019 and December 31, 2018 .

United States Government Defense Environment Overview

The Bipartisan Budget Act of 2018, passed in February 2018, raised the 2011 Budget Control Act spending caps for fiscal years 2018 and 2019 (FY18 and FY19). The consolidated spending bills signed into law in September 2018 provided defense funding for FY19, in compliance with the revised caps. These bills also provided FY19 appropriations for most of the federal government. The Consolidated Appropriations Act, enacted in February 2019, provided FY19 appropriations for the remaining parts of the federal government, including the National Aeronautics and Space Administration (NASA).

There continues to be uncertainty with respect to future program-level appropriations for the U.S. DoD and other government agencies, including NASA. The 2011 Budget Control Act continues to mandate spending caps on U.S. government discretionary spending for fiscal years 2020 and 2021 (FY20 and FY21) that are lower than FY18 and FY19. As a result, continued budget uncertainty and the risk of future sequestration cuts remain. Future budget cuts or investment priority changes could result in reductions, cancellations and/or delays of existing contracts or programs. Any of these impacts could have a material effect on our results of operations, financial position and/or cash flows.

Funding timeliness also remains a risk. If Congress is unable to pass appropriations bills before the beginning of FY20 on October 1, 2019, a government shutdown could result which may have impacts above and beyond those resulting from budget cuts, sequestration impacts or program-level appropriations. For example, requirements to furlough employees in the U.S. DoD, the Department of Transportation or other government agencies could result in payment delays, impair our ability to perform work on existing contracts, and/or negatively impact future orders. Alternatively, Congress may fund FY20 by passing one or more Continuing Resolutions; however, this could restrict the execution of certain program activities and delay new programs or competitions.

BDS Fixed-Price Development Contracts

Fixed-price development work is inherently uncertain and subject to significant variability in estimates of the cost and time required to complete the work. BDS fixed-price contracts with significant development work include Commercial Crew, USAF KC-46A Tanker, T-X Trainer, VC-25B Presidential Aircraft, MQ-25 Stingray, and commercial and military satellites . The operational and technical complexities of these contracts create financial risk, which could trigger termination provisions, order cancellations or other financially significant exposure. Changes to cost and revenue estimates could result in lower margins or material charges for reach-forward losses. For example, we have recorded reach-forward losses on the KC-46A Tanker and we continue to have risk for further losses if we experience further production, technical or quality issues. In addition, in 2018, in connection with winning the T-X Trainer and MQ-25 Stingray competitions, we recorded a loss of $400 associated with options for 346 T-X Trainer aircraft and a loss of $291 related to the MQ-25 Stingray Engineering, Manufacturing and Development (EMD) contract. Moreover, our fixed-price development programs remain subject to additional reach-forward losses if we experience further technical or quality issues, schedule delays, or increased costs.

KC-46A Tanker

In 2011, we were awarded a contract from the U.S. Air Force (USAF) to design, develop, manufacture and deliver four next generation aerial refueling tankers. This EMD contract is a fixed-price incentive fee contract valued at $4.9 billion and involves highly complex designs and systems integration. In 2016, the USAF authorized two low rate initial production (LRIP) lots for 7 and 12 aircraft valued at $2.8 billion . In January 2017, the USAF authorized an additional LRIP lot for 15 aircraft valued at $2.1 billion . On September 10, 2018, the USAF authorized an additional 18 aircraft valued at $2.9 billion .

At June 30, 2019 , we had approximately $404 of capitalized precontract costs and $1,104 of potential termination liabilities to suppliers.

Recoverable Costs on Government Contracts

Our final incurred costs for each year are subject to audit and review for allowability by the U.S. government, which can result in payment demands related to costs they believe should be disallowed. We work with the U.S. government to assess the merits of claims and where appropriate reserve for amounts disputed. If we are unable to satisfactorily resolve disputed costs, we could be required to record an earnings charge and/or provide refunds to the U.S. government.

Note 12 – Arrangements with Off-Balance Sheet Risk

We enter into arrangements with off-balance sheet risk in the normal course of business, primarily in the form of guarantees.

The following table provides quantitative data regarding our third party guarantees. The maximum potential payments represent a “worst-case scenario,” and do not necessarily reflect amounts that we expect to pay. Estimated proceeds from collateral and recourse represent the anticipated values of assets we could liquidate or receive from other parties to offset our payments under guarantees. The carrying amount of liabilities represents the amount included in Accrued liabilities.

	Maximum Potential Payments		Estimated Proceeds from Collateral/Recourse		Carrying Amount of Liabilities	
	June 30 2019	December 31 2018	**June 30 2019**	December 31 2018	**June 30 2019**	December 31 2018
Contingent repurchase commitments	**$1,642**	$1,685	**$1,642**	$1,685		
Indemnifications to ULA:						
Contributed Delta program launch inventory	**35**	52				
Other Delta contracts	**176**	176				
Credit guarantees	**103**	106	**28**	51	**27**	16

Contingent Repurchase Commitments The repurchase price specified in contingent repurchase commitments is generally lower than the expected fair value at the specified repurchase date. Estimated proceeds from collateral/recourse in the table above represent the lower of the contracted repurchase price or the expected fair value of each aircraft at the specified repurchase date.

Indemnifications to ULA In 2006, we agreed to indemnify ULA through December 31, 2020 against potential non-recoverability and non-allowability of $1,360 of Boeing Delta launch program inventory included in contributed assets plus $1,860 of inventory subject to an inventory supply agreement which ends on March 31, 2021. See Note 5 . ULA has yet to consume $35 of contributed inventory.

Potential payments for Other Delta contracts include $85 related to deferred support costs and $91 related to deferred production costs. In June 2011, the Defense Contract Management Agency (DCMA) notified ULA that it had determined that $271 of deferred support costs are not recoverable under government contracts. In December 2011, the DCMA notified ULA of the potential non-recoverability of an additional $114 of deferred production costs. ULA and Boeing believe that all costs are recoverable and in November 2011, ULA filed a certified claim with the USAF for collection of deferred support and production costs. The USAF issued a final decision denying ULA 's certified claim in May 2012. In 2012, Boeing and ULA, through its subsidiary United Launch Services, filed a suit in the Court of Federal Claims seeking recovery of the deferred support and production costs from the U.S. government, which subsequently asserted a counterclaim for credits that it alleges were offset by deferred support cost invoices. We believe that the U.S. government's counterclaim is without merit. The discovery phase of the litigation completed in 2017. The court has scheduled a final pre-trial conference on or after November 21, 2019. If, contrary to our belief, it is determined that some or all of the deferred support or production costs are not recoverable, we could be required to record pre-tax losses and make indemnification payments to ULA for up to $317 of the costs questioned by the DCMA.

Other Indemnifications In conjunction with our sales of Electron Dynamic Devices, Inc. and Rocketdyne Propulsion and Power businesses and our BCA facilities in Wichita, Kansas and Tulsa and McAlester, Oklahoma, we agreed to indemnify, for an indefinite period, the buyers for costs relating to pre-closing environmental conditions and certain other items. We are unable to assess the potential number of future claims that may be asserted under these indemnifications, nor the amounts thereof (if any). As a result, we cannot estimate the maximum potential amount of future payments under these indemnities and therefore, no liability has been recorded. To the extent that claims have been made under these indemnities and/or are probable and reasonably estimable, liabilities associated with these indemnities are included in the environmental liability disclosure in Note 11 .

Credit Guarantees We have issued credit guarantees where we are obligated to make payments to a guaranteed party in the event that the original lessee or debtor does not make payments or perform certain specified services. Generally, these guarantees have been extended on behalf of guaranteed parties with less than investment-grade credit and are collateralized by certain assets. Current outstanding credit guarantees expire through 2036 .

Note 13 – Debt

In the first quarter of 2019, we issued $1,500 of fixed rate senior notes consisting of $400 due March 1, 2024 that bear an annual interest rate of 2.8% , $400 due March 1, 2029 that bear an annual interest rate of 3.2% , $400 due March 1, 2039 that bear an annual interest rate of 3.5% , and $300 due March 1, 2059 that bear an annual interest rate of 3.825% . The notes are unsecured senior obligations and rank equally in right of payment with our existing and future unsecured and unsubordinated indebtedness. The net proceeds of the issuance totaled $1,451 , after deducting underwriting discounts, commissions and offering expenses.

In the second quarter of 2019, we issued $3,500 of fixed rate senior notes consisting of $600 due May 1, 2022 that bear an annual interest rate of 2.7% , $650 due May 1, 2026 that bear an annual interest rate of 3.1% , $600 due March 1, 2029 that bear an annual interest rate of 3.2% , $850 due May 1, 2034 that bear an annual interest rate of 3.6% , and $800 due May 1, 2049 that bear an annual interest rate of 3.9% . The notes are unsecured senior obligations and rank equally in right of payment with our existing and future unsecured and unsubordinated indebtedness. The net proceeds of the issuance totaled $3,454 , after deducting underwriting discounts, commissions and offering expenses.

In the second quarter of 2019, we entered into a $1,500 short-term credit agreement, which is scheduled to terminate on October 30, 2019 . At June 30, 2019 , we had $6,620 of unused borrowing capacity on revolving credit line agreements.

Note 14 – Postretirement Plans

The components of net periodic benefit (income)/cost were as follows:

	Six months ended June 30		Three months ended June 30	
Pension Plans	**2019**	2018	**2019**	2018
Service cost	**$2**	$215	**$1**	$107
Interest cost	**1,462**	1,390	**731**	695
Expected return on plan assets	**(1,930)**	(2,005)	**(965)**	(1,003)
Amortization of prior service credits	**(40)**	(28)	**(20)**	(14)
Recognized net actuarial loss	**321**	565	**160**	283
Settlement/curtailment/other losses		43		43
Net periodic benefit (income)/cost	**($185)**	$180	**($93)**	$111
Net periodic benefit (income)/cost included in (Loss)/earnings from operations	**$158**	$158	**$80**	$76
Net periodic benefit (income)/cost included in Other income/(loss), net	**(187)**	(48)	**(94)**	(6)
Net periodic benefit (income)/cost included in (Loss)/earnings before income taxes	**($29)**	$110	**($14)**	$70

	Six months ended June 30		Three months ended June 30	
Other Postretirement Plans	**2019**	2018	**2019**	2018
Service cost	**$39**	$47	**$20**	$23
Interest cost	**98**	97	**49**	48
Expected return on plan assets	**(4)**	(4)	**(2)**	(2)
Amortization of prior service credits	**(18)**	(63)	**(9)**	(31)
Recognized net actuarial gain	**(23)**	(5)	**(12)**	(2)
Net periodic benefit cost	**$92**	$72	**$46**	$36
Net periodic benefit cost included in (Loss)/earnings from operations	**$45**	$42	**$23**	$20
Net periodic benefit cost included in Other income/(loss), net	**53**	48	**26**	24
Net periodic benefit cost included in (Loss)/earnings before income taxes	**$98**	$90	**$49**	$44

Note 15 – Share-Based Compensation and Other Compensation Arrangements

Restricted Stock Units

On February 25, 2019 , we granted to our executives 233,582 restricted stock units (RSU s) as part of our long-term incentive program with a grant date fair value of $428.22 per unit. The RSU s granted under this program will vest and settle in common stock (on a one-for-one basis) on the third anniversary of the grant date.

Performance-Based Restricted Stock Units

On February 25, 2019 , we granted to our executives 214,651 performance-based restricted stock units (PBRSU s) as part of our long-term incentive program with a grant date fair value of $466.04 per unit. Compensation expense for the award is recognized over the three -year performance period based upon the grant date fair value estimated using a Monte-Carlo simulation model. The model used the following assumptions: expected volatility of 23.88% based upon historical stock volatility, a risk-free interest rate of 2.46% , and no expected dividend yield because the units earn dividend equivalents.

Performance Awards

On February 25, 2019 , we granted to our executives performance awards as part of our long-term incentive program with a payout based on the achievement of financial goals for the three -year period ending December 31, 2021 . At June 30, 2019 , the minimum payout amount is $0 and the maximum amount we could be required to pay out is $393 .

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Note 16 – Shareholders' Equity

Accumulated Other Comprehensive Loss

Changes in Accumulated other comprehensive loss (AOCI) by component for the six and three months ended June 30, 2019 and 2018 were as follows:

	Currency Translation Adjustments	Unrealized Gains and Losses on Certain Investments	Unrealized Gains and Losses on Derivative Instruments	Defined Benefit Pension Plans & Other Postretirement Benefits	Total [1]
Balance at January 1, 2018	($15)	($2)	$54	($16,410)	($16,373)
Other comprehensive (loss)/income before reclassifications	(57)	3	(93)	(2)	(149)
Amounts reclassified from AOCI			10	373 [2]	383
Net current period Other comprehensive (loss)/income	(57)	3	(83)	371	234
Balance at June 30, 2018	($72)	$1	($29)	($16,039)	($16,139)
Balance at January 1, 2019	**($101)**		**($62)**	**($14,920)**	**($15,083)**
Other comprehensive (loss)/income before reclassifications	**(2)**	**1**	**(17)**	**8**	**(10)**
Amounts reclassified from AOCI			**(3)**	**188** [2]	**185**
Net current period Other comprehensive (loss)/income	**(2)**	**1**	**(20)**	**196**	**175**
Balance at June 30, 2019	**($103)**	**$1**	**($82)**	**($14,724)**	**($14,908)**
Balance at March 31, 2018	$12		$56	($16,230)	($16,162)
Other comprehensive (loss)/income before reclassifications	(84)	1	(91)	1	(173)
Amounts reclassified from AOCI			6	190 [2]	196
Net current period Other comprehensive (loss)/income	(84)	1	(85)	191	23
Balance at June 30, 2018	($72)	$1	($29)	($16,039)	($16,139)
Balance at March 31, 2019	**($100)**	**$1**	**($53)**	**($14,817)**	**($14,969)**
Other comprehensive (loss)/income before reclassifications	**(3)**		**(28)**		**(31)**
Amounts reclassified from AOCI			**(1)**	**93** [2]	**92**
Net current period Other comprehensive (loss)/income	**(3)**		**(29)**	**93**	**61**
Balance at June 30, 2019	**($103)**	**$1**	**($82)**	**($14,724)**	**($14,908)**

[1] Net of tax.

[2] Primarily relates to amortization of actuarial losses for the six and three months ended June 30, 2018 totaling $438 and $219 (net of tax of ($122) and ($62)) and for the six and three months ended June 30, 2019 totaling $233 and $115 (net of tax of ($65) and ($33)). These are included in the net periodic pension cost.

Note 17 – Derivative Financial Instruments

Disclosures reflect the adoption of ASU 2017-12, *Derivatives and Hedging (Topic 815)* , in the first quarter of 2019. Prior period amounts have not been restated.

Cash Flow Hedges

Our cash flow hedges include foreign currency forward contracts, commodity swaps and commodity purchase contracts. We use foreign currency forward contracts to manage currency risk associated with certain transactions, specifically forecasted sales and purchases made in foreign currencies. Our foreign currency contracts hedge forecasted transactions through 2025 . We use commodity derivatives, such as fixed-price purchase commitments and swaps to hedge against potentially unfavorable price changes for items used in production. Our commodity contracts hedge forecasted transactions through 2023 .

Fair Value Hedges

Interest rate swaps under which we agree to pay variable rates of interest are designated as fair value hedges of fixed-rate debt. The net change in fair value of the derivatives and the hedged items is reported in Boeing Capital interest expense.

Derivative Instruments Not Receiving Hedge Accounting Treatment

We have entered into agreements to purchase and sell aluminum to address long-term strategic sourcing objectives and non-U.S. business requirements. These agreements are derivative instruments for accounting purposes. The quantities of aluminum in these agreements offset and are priced at prevailing market prices. We also hold certain foreign currency forward contracts which do not qualify for hedge accounting treatment.

Notional Amounts and Fair Values

The notional amounts and fair values of derivative instruments in the Condensed Consolidated Statements of Financial Position were as follows:

	Notional amounts [1]		Other assets		Accrued liabilities	
	June 30 2019	December 31 2018	**June 30 2019**	December 31 2018	**June 30 2019**	December 31 2018
Derivatives designated as hedging instruments:						
Foreign exchange contracts	**$3,077**	$3,407	**$30**	$32	**($62)**	($132)
Interest rate contracts	**125**	125				
Commodity contracts	**690**	57	**8**	9	**(62)**	(2)
Derivatives not receiving hedge accounting treatment:						
Foreign exchange contracts	**1,064**	414	**5**	11	**(23)**	(2)
Commodity contracts	**225**	478				
Total derivatives	**$5,181**	$4,481	**$43**	$52	**($147)**	($136)
Netting arrangements			**(26)**	(24)	**26**	24
Net recorded balance			**$17**	$28	**($121)**	($112)

[1] Notional amounts represent the gross contract/notional amount of the derivatives outstanding.

Gains/(losses) associated with our hedging transactions and forward points recognized in Other comprehensive income are presented in the following table:

	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	**2018**
Recognized in Other comprehensive income, net of taxes:				
Foreign exchange contracts	**$31**	($93)	**$9**	($91)
Commodity contracts	**(48)**		**(37)**	

Gains/(losses) associated with our hedging transactions and forward points reclassified from AOCI to earnings are presented in the following table:

	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Foreign exchange contracts				
Revenues	**$6**		**$1**	
Costs and expenses	**(12)**	($8)	**(7)**	($3)
General and administrative	**9**	(3)	**8**	(3)
Commodity contracts				
Revenues				
Costs and expenses	**1**			
General and administrative expense		(1)	**(1)**	(1)

Gains/(losses) related to undesignated derivatives on foreign exchange cash flow hedging transactions recognized in Other income/(loss), net were gains of $2 and $0 for the six and three months ended June 30, 2019 and losses of $1 and $4 for the six and three months ended June 30, 2018 . Forward points related to foreign exchange cash flow hedging transactions recognized in Other income/(loss), net were gains of $5 and losses of $1 for the six and three months ended June 30, 2018 .

Based on our portfolio of cash flow hedges, we expect to reclassify losses of $22 (pre-tax) out of Accumulated other comprehensive loss into earnings during the next 12 months.

We have derivative instruments with credit-risk-related contingent features. For foreign exchange contracts with original maturities of at least five years, our derivative counterparties could require settlement if we default on our five-year credit facility. For certain commodity contracts, our counterparties could require collateral posted in an amount determined by our credit ratings. The fair value of foreign exchange and commodity contracts that have credit-risk-related contingent features that are in a net liability position at June 30, 2019 was $28 . At June 30, 2019 , there was no collateral posted related to our derivatives.

Note 18 – Fair Value Measurements

The fair value hierarchy has three levels based on the reliability of the inputs used to determine fair value. Level 1 refers to fair values determined based on quoted prices in active markets for identical assets. Level 2 refers to fair values estimated using significant other observable inputs and Level 3 includes fair values estimated using significant unobservable inputs. The following table presents our assets and liabilities that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy.

	June 30, 2019			December 31, 2018		
	Total	**Level 1**	**Level 2**	Total	Level 1	Level 2
Assets						
Money market funds	**$2,447**	**$2,447**		$1,737	$1,737	
Available-for-sale debt investments:						
Commercial paper	**62**		**$62**	78		$78
Corporate notes	**245**		**245**	420		420
Other equity investments	**12**	**12**		12	12	
Derivatives	**17**		**17**	28		28
Total assets	**$2,783**	**$2,459**	**$324**	$2,275	$1,749	$526
Liabilities						
Derivatives	**($121)**		**($121)**	($112)		($112)
Total liabilities	**($121)**		**($121)**	($112)		($112)

Money market funds, available-for-sale debt investments and equity securities are valued using a market approach based on the quoted market prices or broker/dealer quotes of identical or comparable instruments.

Derivatives include foreign currency, commodity and interest rate contracts. Our foreign currency forward contracts are valued using an income approach based on the present value of the forward rate less the contract rate multiplied by the notional amount. Commodity derivatives are valued using an income approach based on the present value of the commodity index prices less the contract rate multiplied by the notional amount. The fair value of our interest rate swaps is derived from a discounted cash flow analysis based on the terms of the contract and the interest rate curve.

Certain assets have been measured at fair value on a nonrecurring basis using significant unobservable inputs (Level 3). The following table presents the nonrecurring losses recognized for the six months ended June 30 due to long-lived asset impairment and the fair value and asset classification of the related assets as of the impairment date:

	2019		2018	
	Fair Value	**Total Losses**	Fair Value	Total Losses
Operating lease equipment	**$10**	**($1)**	$43	($17)
Investments	**72**	**(51)**		(30)
Property, plant and equipment	**41**	**(1)**		
Acquired intangible assets	**3**	**(17)**		
Total	**$126**	**($70)**	$43	($47)

Investments, Property, plant and equipment and Acquired intangible assets were primarily valued using an income approach based on the discounted cash flows associated with the underlying assets. The fair value of the impaired operating lease equipment is derived by calculating a median collateral value from a consistent group of third party aircraft value publications. The values provided by the third party aircraft publications are derived from their knowledge of market trades and other market factors. Management reviews the publications quarterly to assess the continued appropriateness and consistency with market trends. Under certain circumstances, we adjust values based on the attributes and condition of the specific aircraft or equipment, usually when the features or use of the aircraft vary significantly from the more generic aircraft attributes covered by third party publications, or on the expected net sales price for the aircraft.

For Level 3 assets that were measured at fair value on a nonrecurring basis during the six months ended June 30 , the following table presents the fair value of those assets as of the measurement date, valuation techniques and related unobservable inputs of those assets.

	Fair Value	Valuation Technique(s)	Unobservable Input	Range Median or Average
Operating lease equipment	$10	Market approach	Aircraft value publications	$20 - $12 [(1)] Median $16
			Aircraft condition adjustments	($6) - $0 [(2)] Net ($6)

(1) The range represents the sum of the highest and lowest values for all aircraft subject to fair value measurement, according to the third party aircraft valuation publications that we use in our valuation process.

(2) The negative amount represents the sum for all aircraft subject to fair value measurement, of all downward adjustments based on consideration of individual aircraft attributes and condition. The positive amount represents the sum of all such upward adjustments.

Fair Value Disclosures

The fair values and related carrying values of financial instruments that are not required to be remeasured at fair value on the Condensed Consolidated Statements of Financial Position were as follows:

	June 30, 2019				
	Carrying Amount	**Total Fair Value**	**Level 1**	**Level 2**	**Level 3**
Assets					
Notes receivable, net	**$449**	**$456**		**$456**	
Liabilities					
Debt, excluding capital lease obligations and commercial paper	**(15,998)**	**(17,533)**		**(17,495)**	**($38)**

	December 31, 2018				
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
Assets					
Notes receivable, net	$730	$735		$735	
Liabilities					
Debt, excluding capital lease obligations and commercial paper	(11,796)	(12,746)		(12,682)	($64)

The fair values of notes receivable are estimated with discounted cash flow analysis using interest rates currently offered on loans with similar terms to borrowers of similar credit quality. The fair value of our debt that is traded in the secondary market is classified as Level 2 and is based on current market yields. For our debt that is not traded in the secondary market, the fair value is classified as Level 2 and is based on our indicative borrowing cost derived from dealer quotes or discounted cash flows. The fair values of our debt classified as Level 3 are based on discounted cash flow models using the implied yield from similar securities. With regard to other financial instruments with off-balance sheet risk, it is not practicable to estimate the fair value of our indemnifications and financing commitments because the amount and timing of those arrangements are uncertain. Items not included in the above disclosures include cash, restricted cash, time deposits and other deposits, commercial paper, money market funds, Accounts receivable, Unbilled receivables, Accounts payable and long-term payables. The carrying values of those items, as reflected in the Condensed Consolidated Statements of Financial Position, approximate their fair value at June 30, 2019 and December 31, 2018 . The fair value of assets and liabilities whose carrying value approximates fair value is determined using Level 2 inputs, with the exception of cash (Level 1).

Note 19 – Legal Proceedings

Various legal proceedings, claims and investigations related to products, contracts, employment and other matters are pending against us.

In addition, we are subject to various U.S. government inquiries and investigations from which civil, criminal or administrative proceedings could result or have resulted in the past. Such proceedings involve or could involve claims by the government for fines, penalties, compensatory and treble damages, restitution and/or forfeitures. Under government regulations, a company, or one or more of its operating divisions or subdivisions, can also be suspended or debarred from government contracts, or lose its export privileges, based on the results of investigations. We believe, based upon current information, that the outcome of any such legal proceeding, claim, or government dispute and investigation will not have a material effect on our financial position, results of operations, or cash flows. Where it is reasonably possible that we will incur losses in excess of recorded amounts in connection with any of the matters set forth below, we will disclose either the amount or range of reasonably possible losses in excess of such amounts or, where no such amount or range can be reasonably estimated, the reasons why no such estimate can be made.

Multiple legal actions have been filed against us as a result of the October 29, 2018 accident of Lion Air Flight 610 and the March 10, 2019 accident of Ethiopian Airlines Flight 302. Further, we are fully cooperating with all ongoing governmental and regulatory investigations and inquiries relating to the accidents and the 737 MAX. We cannot reasonably estimate a range of loss, if any, that may result given the ongoing status of these lawsuits, investigations, and inquiries.

Note 20 – Segment and Revenue Information

Effective at the beginning of 2019, all revenues and costs associated with military derivative aircraft production are reported in the BDS segment. Revenues and costs associated with military derivative aircraft production were previously reported in the BCA and BDS segments. Business segment data for 2018 reflects the realignment for military derivative aircraft, as well as the realignment of certain programs from BDS to BGS.

Our primary profitability measurements to review a segment’s operating results are Earnings from operations and operating margins. We operate in four reportable segments: BCA, BDS, BGS, and BCC. All other activities fall within Unallocated items, eliminations and other. See page 7 for the Summary of Business Segment Data, which is an integral part of this note.

BCA develops, produces and markets commercial jet aircraft principally to the commercial airline industry worldwide. Revenue on commercial aircraft contracts is recognized at the point in time when an aircraft is completed and accepted by the customer.

BDS engages in the research, development, production and modification of the following products and related services: manned and unmanned military aircraft and weapons systems, surveillance and engagement, strategic defense and intelligence systems, satellite systems and space exploration. BDS revenue is generally recognized over the contract term (over time) as costs are incurred.

BGS provides parts, maintenance, modifications, logistics support, training, data analytics and information-based services to commercial and government customers worldwide. BGS segment revenue and costs include certain services provided to other segments. Revenue on commercial spare parts contracts is recognized at the point in time when a spare part is delivered to the customer. Revenue on other contracts is generally recognized over the contract term (over time) as costs are incurred.

BCC facilitates, arranges, structures and provides selective financing solutions for our Boeing customers.

The following tables present BCA, BDS and BGS revenues from contracts with customers disaggregated in a number of ways, such as geographic location, contract type and the method of revenue recognition. We believe these best depict how the nature, amount, timing and uncertainty of our revenues and cash flows are affected by economic factors.

BCA revenues by customer location consist of the following:

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Revenue from contracts with customers:				
Europe	**$2,684**	$5,307	**$1,023**	$2,108
China	**3,156**	4,756	**1,610**	2,709
Asia, other than China	**4,378**	4,080	**2,750**	2,349
Middle East	**1,805**	2,333	**695**	1,872
Other	**2,367**	2,500	**829**	1,006
Total non-U.S. revenues	**14,390**	18,976	**6,907**	10,044
United States	**7,587**	7,902	**3,417**	3,902
Estimated potential concessions and other considerations to 737 MAX customers	**(5,610)**		**(5,610)**	
Total revenues from contracts with customers	**16,367**	26,878	**4,714**	13,946
Intersegment revenues eliminated on consolidation	**177**	19	**8**	6
Total segment revenues	**$16,544**	$26,897	**$4,722**	$13,952
Revenue recognized on fixed-price contracts	**100%**	100%	**100%**	100%
Revenue recognized at a point in time	**99%**	100%	**99%**	100%

BDS revenues on contracts with customers, based on the customer's location, consist of the following:

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Revenue from contracts with customers:				
U.S. customers	**$9,775**	$9,205	**$4,868**	$4,260
Non U.S. customers [(1)]	**3,448**	3,376	**1,744**	1,840
Total segment revenue from contracts with customers	**$13,223**	$12,581	**$6,612**	$6,100
Revenue recognized over time	**99%**	98%	**99%**	99%
Revenue recognized on fixed-price contracts	**69%**	68%	**69%**	66%
Revenue from the U.S. government [(1)]	**88%**	88%	**89%**	86%

(1) Includes revenues earned from foreign military sales through the U.S. government.

BGS revenues consist of the following:

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Revenue from contracts with customers:				
Commercial	**$5,111**	$4,252	**$2,526**	$2,173
Government	**3,974**	3,702	**1,977**	1,890
Total revenues from contracts with customers	**9,085**	7,954	**4,503**	4,063
Intersegment revenues eliminated on consolidation	**77**	93	**40**	34
Total segment revenues	**$9,162**	$8,047	**$4,543**	$4,097
Revenue recognized at a point in time	**57%**	53%	**57%**	52%
Revenue recognized on fixed-price contracts	**89%**	89%	**90%**	90%
Revenue from the U.S. government [1]	**32%**	31%	**32%**	26%

[1] Includes revenues earned from foreign military sales through the U.S. government.

Backlog

Our total backlog represents the estimated transaction prices on performance obligations to our customers for which work remains to be performed. Backlog is converted into revenue in future periods as work is performed, primarily based on the cost incurred or at delivery and acceptance of products, depending on the applicable accounting method.

Our backlog at June 30, 2019 was $474,251 . We expect approximately 29% to be converted to revenue through 2020 and approximately 73% through 2023 , with the remainder thereafter.

Unallocated Items, Eliminations and other

Unallocated items, eliminations and other include common internal services that support Boeing's global business operations, intercompany guarantees provided to BCC and eliminations of certain sales between segments. Such sales include airplanes accounted for as operating leases and considered transferred to the BCC segment. We generally allocate costs to business segments based on the U.S. federal cost accounting standards. Components of Unallocated items, eliminations and other are shown in the following table.

	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Share-based plans	**($36)**	($36)	**($22)**	($18)
Deferred compensation	**(129)**	(56)	**(27)**	(27)
Amortization of previously capitalized interest	**(45)**	(48)	**(21)**	(23)
Research and development expense, net	**(173)**	(19)	**(99)**	(21)
Customer financing impairment	**(250)**			
Litigation	**(109)**	(148)	**(109)**	(148)
Eliminations and other unallocated items	**(463)**	(415)	**(220)**	(159)
Unallocated items, eliminations and other	**($1,205)**	($722)	**($498)**	($396)
Pension FAS/CAS service cost adjustment	**$549**	$520	**$275**	$237
Postretirement FAS/CAS service cost adjustment	**180**	162	**90**	80
FAS/CAS service cost adjustment	**$729**	$682	**$365**	$317

Pension and Other Postretirement Benefit Expense

Pension costs, comprising GAAP service and prior service costs, are allocated to BCA and the commercial operations at BGS. Pension costs are allocated to BDS and BGS businesses supporting government customers using U.S. Government Cost Accounting Standards (CAS), which employ different actuarial assumptions and accounting conventions than GAAP . These costs are allocable to government contracts. Other postretirement benefit costs are allocated to business segments based on CAS , which is generally based on benefits paid. FAS/CAS service cost adjustment represents the difference between the FAS pension and postretirement service costs calculated under GAAP and costs allocated to the business segments. Non-operating pension and postretirement expenses represent the components of net periodic benefit costs other than service cost. These expenses are included in Other income/(loss), net .

Assets

Segment assets are summarized in the table below:

	June 30 2019	December 31 2018
Commercial Airplanes	**$70,398**	$64,788
Defense, Space & Security	**19,193**	19,594
Global Services	**18,578**	17,921
Boeing Capital	**2,299**	2,809
Unallocated items, eliminations and other	**15,793**	12,247
Total	**$126,261**	$117,359

Assets included in Unallocated items, eliminations and other primarily consist of Cash and cash equivalents, Short-term and other investments, Deferred tax assets, capitalized interest and assets held centrally as well as intercompany eliminations.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
The Boeing Company
Chicago, Illinois

Results of Review of Interim Financial Information

We have reviewed the accompanying condensed consolidated statement of financial position of The Boeing Company and subsidiaries (the “Company”) as of June 30, 2019 , the related condensed consolidated statements of operations, comprehensive income, and equity for the three-month and six-month periods ended June 30, 2019 and 2018 , and of cash flows for the six months ended June 30 , 2019 and 2018 , and the related notes (collectively referred to as the "condensed consolidated interim financial information"). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying condensed consolidated 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 the Company as of December 31, 2018 , and the related consolidated statements of operations, comprehensive income, cash flows, and equity for the year then ended (not presented herein); and in our report dated February 8, 2019, we expressed an unqualified opinion on those consolidated financial statements and included an explanatory paragraph related to the Company’s change in method of accounting for revenue from contracts with customers. In our opinion, the information set forth in the accompanying condensed consolidated statement of financial position as of December 31, 2018 , is fairly stated, in all material respects, in relation to the consolidated statement of financial position from which it has been derived.

Basis for Review Results

This condensed consolidated 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

Chicago, Illinois

July 24, 2019

FORWARD-LOOKING STATEMENTS

This report contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “may,” “should,” “expects,” “intends,” “projects,” “plans,” “believes,” “estimates,” “targets,” “anticipates” and similar expressions generally identify these forward-looking statements. Examples of forward-looking statements include statements relating to our future financial condition and operating results, as well as any other statement that does not directly relate to any historical or current fact.

Forward-looking statements are based on expectations and assumptions that we believe to be reasonable when made, but that may not prove to be accurate. These statements are not guarantees and are subject to risks, uncertainties and changes in circumstances that are difficult to predict. Many factors could cause actual results to differ materially and adversely from these forward-looking statements. Among these factors are risks related to:

(1) the timing and conditions surrounding return to service of the 737 MAX fleet;

(2) general conditions in the economy and our industry, including those due to regulatory changes;

(3) our reliance on our commercial airline customers;

(4) the overall health of our aircraft production system, planned commercial aircraft production rate changes, our commercial development and derivative aircraft programs, and our aircraft being subject to stringent performance and reliability standards;

(5) changing budget and appropriation levels and acquisition priorities of the U.S. government;

(6) our dependence on U.S. government contracts;

(7) our reliance on fixed-price contracts;

(8) our reliance on cost-type contracts;

(9) uncertainties concerning contracts that include in-orbit incentive payments;

(10) our dependence on our subcontractors and suppliers as well as the availability of raw materials;

(11) changes in accounting estimates;

(12) changes in the competitive landscape in our markets;

(13) our non-U.S. operations, including sales to non-U.S. customers;

(14) threats to the security of our or our customers' information;

(15) potential adverse developments in new or pending litigation and/or government investigations;

(16) customer and aircraft concentration in our customer financing portfolio;

(17) changes in our ability to obtain debt on commercially reasonable terms and at competitive rates;

(18) realizing the anticipated benefits of mergers, acquisitions, joint ventures, strategic alliances or divestitures;

(19) the adequacy of our insurance coverage to cover significant risk exposures;

(20) potential business disruptions, including those related to physical security threats, information technology or cyber attacks, epidemics, sanctions or natural disasters;

(21) work stoppages or other labor disruptions;

(22) substantial pension and other postretirement benefit obligations; and

(23) potential environmental liabilities.

Additional information concerning these and other factors can be found in our filings with the Securities and Exchange Commission, including our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Any forward-looking information speaks only as of the date on which it is made, and we assume no obligation to update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise, except as required by law.

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

Consolidated Results of Operations and Financial Condition

Earnings From Operations and Core Operating Earnings (Non-GAAP) The following table summarizes key indicators of consolidated results of operations:

(Dollars in millions, except per share data)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Revenues	**$38,668**	$47,640	**$15,751**	$24,258
GAAP				
(Loss)/earnings from operations	**($1,030)**	$5,585	**($3,380)**	$2,710
Operating margins	**(2.7)%**	11.7%	**(21.5)%**	11.2%
Effective income tax rate	**27.5 %**	13.9%	**14.2 %**	15.1%
Net (loss)/earnings	**($793)**	$4,673	**($2,942)**	$2,196
Diluted (loss)/earnings per share	**($1.40)**	$7.88	**($5.21)**	$3.73
Non-GAAP [1]				
Core operating (loss)/earnings	**($1,759)**	$4,903	**($3,745)**	$2,393
Core operating margins	**(4.5%)**	10.3%	**(23.8%)**	9.9%
Core (loss)/earnings per share	**($2.60)**	$6.97	**($5.82)**	$3.33

(1) These measures exclude certain components of pension and other postretirement benefit expense. See page 51 for important information about these non-GAAP measures and reconciliations to the most comparable GAAP measures.

Revenues

The following table summarizes Revenues:

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Commercial Airplanes	**$16,544**	$26,897	**$4,722**	$13,952
Defense, Space & Security	**13,223**	12,581	**6,612**	6,100
Global Services	**9,162**	8,047	**4,543**	4,097
Boeing Capital	**141**	137	**75**	72
Unallocated items, eliminations and other	**(402)**	(22)	**(201)**	37
Total	**$38,668**	$47,640	**$15,751**	$24,258

Revenues for the six months ended June 30, 2019 decreased by $8,972 million compared with the same period in 2018 . Commercial Airplanes (BCA) revenues decreased by $10,353 million driven by lower deliveries and a revenue reduction of $5,610 million that was recorded in the second quarter of 2019 related to estimated potential concessions and other considerations to customers for disruptions and associated delivery delays related to the 737 MAX grounding . Defense, Space & Security (BDS) revenues increased by $642 million primarily due to higher revenues from derivative aircraft, satellites and weapons, partially offset by lower revenue for fighters and C-17 . Global Services (BGS) revenues increased by $1,115 million primarily due to the acquisition of KLX, Inc. in the fourth quarter of 2018 and international government services revenue . The changes in Unallocated items, eliminations and other primarily reflect the timing of eliminations for intercompany aircraft deliveries.

Revenues for the three months ended June 30, 2019 decreased by $8,507 million compared with the same period in 2018 . BCA revenues decreased by $9,230 million primarily due to lower deliveries and a revenue reduction of $5,610 million that was recorded in the second quarter of 2019 related to estimated potential concessions and other considerations to customers for disruptions and associated delivery delays related to the 737 MAX grounding . BDS revenues increased by $512 million primarily due to higher revenues from derivative aircraft, satellites and weapons . BGS revenues increased by $446 million , primarily due to the acquisition of KLX, Inc. in the fourth quarter of 2018 and international government services revenue .

Earnings From Operations

The following table summarizes Earnings from operations:

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Commercial Airplanes	**($3,773)**	$3,197	**($4,946)**	$1,785
Defense, Space & Security	**1,822**	1,133	**975**	376
Global Services	**1,340**	1,251	**687**	604
Boeing Capital	**57**	44	**37**	24
Segment operating (loss)/profit	**(554)**	5,625	**(3,247)**	2,789
Pension FAS/CAS service cost adjustment	**549**	520	**275**	237
Postretirement FAS/CAS service cost adjustment	**180**	162	**90**	80
Unallocated Items, Eliminations and Other	**(1,205)**	(722)	**(498)**	(396)
(Loss)/earnings from operations (GAAP)	**($1,030)**	$5,585	**($3,380)**	$2,710
FAS/CAS service cost adjustment *	**(729)**	(682)	**(365)**	(317)
Core operating (loss)/earnings (Non-GAAP) **	**($1,759)**	$4,903	**($3,745)**	$2,393

* The FAS/CAS service cost adjustment represents the difference between the FAS pension and postretirement service costs calculated under GAAP and costs allocated to the business segments.

** Core operating (loss)/earnings is a Non-GAAP measure that excludes the FAS/CAS service cost adjustment. See page 51 .

Earnings from operations for the six months ended June 30, 2019 decreased by $6,615 million compared with the same period in 2018 , primarily due to lower earnings at BCA and a customer financing impairment of $250 million that was recorded in Unallocated Items, Eliminations and Other. The decrease was partially offset by higher earnings at BDS and BGS. BCA earnings from operations decreased by $6,970 million primarily due to the earnings charge for the 737 MAX grounding of $5,610 million and lower 737 deliveries, partially offset by higher 787 margins . BDS earnings from operations increased by $689 million , primarily due to lower KC-46A Tanker reach-forward losses and gains on the sale of property . BGS earnings from operations increased by $89 million primarily due to higher revenues .

Earnings from operations for the three months ended June 30, 2019 decreased by $6,090 million compared with the same period in 2018 , primarily due to lower earnings at BCA, partially offset by higher earnings at BDS and BGS. BCA's earnings from operations decreased $6,731 million primarily due to the earnings charge for the 737 MAX grounding of $5,610 million and lower 737 deliveries, partially offset by higher 787 margins . BDS earnings from operations increased by $599 million , compared with the same period in 2018 primarily due to lower KC-46A Tanker reach-forward losses and a gain on the sale of property. BGS earnings from operations increased by $83 million primarily due to higher revenues .

Core operating earnings for the six and three months ended June 30, 2019 decreased by $6,662 million and $6,138 million compared with the same periods in 2018 primarily due to lower earnings at BCA, partially offset by higher earnings at BDS and BGS.

Unallocated Items, Eliminations and Other The most significant items included in Unallocated items, eliminations and other are shown in the following table:

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Share-based plans	**($36)**	($36)	**($22)**	($18)
Deferred compensation	**(129)**	(56)	**(27)**	(27)
Amortization of previously capitalized interest	**(45)**	(48)	**(21)**	(23)
Research and development expense, net	**(173)**	(19)	**(99)**	(21)
Customer financing impairment	**(250)**			
Litigation	**(109)**	(148)	**(109)**	(148)
Eliminations and other unallocated items	**(463)**	(415)	**(220)**	(159)
Unallocated items, eliminations and other	**($1,205)**	($722)	**($498)**	($396)

The deferred compensation expense increased by $73 million for the six months ended June 30, 2019 compared with the same period in 2018 primarily driven by changes in broad market conditions.

Research and development expense increased by $154 million and $78 million for the six and three months ended June 30, 2019 compared with the same periods in 2018 primarily due to enterprise investments in new products and technologies.

During the first quarter of 2019, we recorded a $250 million charge related to the impairment of lease incentives with one customer that is currently experiencing liquidity issues.

During the second quarter of 2019 , we recorded a charge of $109 million related to ongoing litigation associated with recoverable costs on U.S. government contracts. In the second quarter of 2018 , we recorded a charge of $148 million related to the outcome of the Spirit litigation.

A portion of service cost is recognized in Earnings from operations in the period incurred and the remainder is included in inventory at the end of the reporting period and recorded in Earnings from operations in subsequent periods.

Net periodic pension benefit costs included in Earnings from operations were as follows:

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
Pension Plans	**2019**	2018	**2019**	2018
Allocated to business segments	**($707)**	($678)	**($355)**	($313)
Pension FAS/CAS service cost adjustment	**549**	520	**275**	237
Net periodic benefit (income)/cost included in (Loss)/earnings from operations	**($158)**	($158)	**($80)**	($76)

The pension FAS/CAS service cost adjustment recognized in earnings in 2019 is largely consistent with the same periods in the prior year. The net periodic benefit costs included in Earnings from operations in 2019 is largely consistent with the same periods in the prior year.

For discussion related to Postretirement Plans, see Note 14 to our Condensed Consolidated Financial Statements.

Other Earnings Items

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
(Loss)/earnings from operations	**($1,030)**	$5,585	**($3,380)**	$2,710
Other income/(loss), net	**213**	51	**107**	(15)
Interest and debt expense	**(277)**	(211)	**(154)**	(109)
(Loss)/earnings from operations	**(1,094)**	5,425	**(3,427)**	2,586
Income tax benefit/(expense)	**301**	(752)	**485**	(390)
Net (loss)/earnings from continuing operations	**($793)**	$4,673	**($2,942)**	$2,196

Other income/(loss), net increased by $162 million and $122 million during the six and three months ended June 30, 2019 , primarily due to non-operating pension expense. Non-operating pension expense was a benefit of $187 million and $94 million during the six and three months ended June 30, 2019 compared with $48 million and $6 million during the same periods in 2018 . The benefits in 2019 reflect a decrease in the amortization of actuarial losses, offset by higher interest costs.

Higher interest and debt expense for the six and three months ended June 30, 2019 is a result of higher debt balances, partially offset by higher capitalized interest.

For discussion related to Income Taxes, see Note 4 to our Condensed Consolidated Financial Statements.

Total Costs and Expenses ("Cost of Sales")

Cost of sales, for both products and services, consists primarily of raw materials, parts, sub-assemblies, labor, overhead and subcontracting costs. Our BCA segment predominantly uses program accounting to account for cost of sales. Under program accounting, cost of sales for each commercial airplane program equals the product of (i) revenue recognized in connection with customer deliveries and (ii) the estimated cost of sales percentage applicable to the total remaining program. For long-term contracts, the amount reported as cost of sales is recognized as incurred. Substantially all contracts at our BDS segment and certain contracts at our BGS segment are long-term contracts with the U.S. government and other customers that generally extend over several years. Costs on these contracts are recorded as incurred. Cost of sales for commercial spare parts is recorded at average cost.

The following table summarizes cost of sales:

(Dollars in millions)	Six months ended June 30			Three months ended June 30		
	2019	2018	Change	**2019**	2018	Change
Cost of sales	**$36,455**	$38,360	($1,905)	**$17,810**	$19,536	($1,726)
Cost of sales as a % of Revenues	**94.3%**	80.5%	13.8%	**113.1%**	80.5%	32.6%

Cost of sales for the six and three months ended June 30, 2019 decreased by $1,905 million , or 5% and by $1,726 million , or 9% compared with the same periods in 2018 , primarily due to lower revenue and lower reach-forward losses. Cost of sales as a percentage of Revenues increased in 2019 due to the reduction in revenue due to the 737 MAX grounding.

Research and Development The following table summarizes our Research and development expense:

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Commercial Airplanes	**$1,062**	$1,099	**$498**	$550
Defense, Space & Security	**384**	402	**196**	219
Global Services	**73**	71	**33**	37
Other	**173**	19	**99**	21
Total	**$1,692**	$1,591	**$826**	$827

Research and development expense for the six months ended June 30, 2019 increased by $101 million compared with the same period in 2018 , primarily due to BCA and enterprise investments in product development, partially offset by lower 777X, 737 MAX, and 787-10 spending.

Backlog

(Dollars in millions)	**June 30 2019**	December 31 2018
Commercial Airplanes	**$390,405**	$408,140
Defense, Space & Security	**63,872**	61,277
Global Services	**19,974**	21,064
Total Backlog	**$474,251**	$490,481
Contractual backlog	**$448,816**	$462,070
Unobligated backlog	**25,435**	28,411
Total Backlog	**$474,251**	$490,481

Contractual backlog of unfilled orders excludes purchase options, announced orders for which definitive contracts have not been executed, and unobligated U.S. and non-U.S. government contract funding. The decrease during the six months ended June 30, 2019 was primarily due to lower BCA backlog, partially offset by BDS orders and funding for contract awards in excess of deliveries and revenue recognized.

Unobligated backlog includes U.S. and non-U.S. government definitive contracts for which funding has not been authorized. The decrease during the six months ended June 30, 2019 was primarily due to reclassifications to contractual backlog related to BGS and BDS contracts.

Export-Import Bank of the United States Many of our non-U.S. customers finance purchases through the Export-Import Bank of the United States. Following the expiration of the bank's charter on June 30, 2015, the bank's charter was reauthorized in December 2015. However, from the time of that reauthorization until May 8, 2019, when the U.S. Senate confirmed members sufficient to constitute a quorum of the bank's board of directors, the bank was not able to approve any transaction totaling more than $10 million. The bank is authorized through September 30, 2019. If the bank's charter is not reauthorized on a timely basis, we may fund additional commitments and/or enter into new financing arrangements with customers. Certain of our non-U.S. customers also may seek to delay purchases if they cannot obtain financing at reasonable costs, and there may be further impacts with respect to future sales campaigns involving non-U.S. customers.

Global Trade In June 2018, the U.S. Government began imposing tariffs on steel and aluminum imports. In response to these tariffs, several major U.S. trading partners have imposed, or announced their intention to impose, tariffs on U.S. goods. In May 2019, the U.S. Government, Mexico and Canada reached an agreement to end the steel and aluminum tariffs between these countries. We continue to monitor this agreement and the potential for any extra costs that may result from the remaining global tariffs.

In July 2018, the U.S. and China began imposing tariffs on approximately $34 billion of each other's exports. Certain aircraft parts and components that Boeing procures are subject to these tariffs. Subsequently, the U.S. imposed tariffs on an additional $216 billion in Chinese goods, and China imposed tariffs on an additional $76 billion worth of U.S goods. Negotiations to resolve the trade dispute are currently ongoing. We continue to monitor the potential for any disruption and adverse revenue and/or cost impacts that may result from these actions, the potential imposition of future tariffs, or future geopolitical economic developments.

The U.S. Government continues to impose and/or consider imposing sanctions on certain businesses and individuals in Russia. Although our operations or sales in Russia have not been impacted to date, we continue to monitor additional sanctions that may be imposed by the U.S. Government and any responses from Russia that could affect our supply chain, business partners or customers.

Segment Results of Operations and Financial Condition

Commercial Airplanes

Business Environment and Trends

Airline Industry Environment

Our updated 20-year forecast, published in June 2019, projects a long-term average growth rate of 4.6% per year for passenger traffic and 4.2% for cargo traffic. Based on long-term global economic growth projections of 2.7% average annual GDP growth, we project a $6.8 trillion market for 44,040 new airplanes over the next 20 years.

Results of Operations

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Revenues	**$16,544**	$26,897	**$4,722**	$13,952
Earnings from operations	**($3,773)**	$3,197	**($4,946)**	$1,785
Operating margins	**(22.8)%**	11.9%	**(104.7)%**	12.8%

Revenues

Revenues for the six and three months ended June 30, 2019 decreased by $10,353 million and $9,230 million compared with the same periods in 2018 driven by lower deliveries and a revenue reduction of $5,610 million that was recorded in the second quarter of 2019 related to estimated potential concessions and other considerations to customers for disruptions and associated delivery delays related to the 737 MAX grounding . The 737 MAX grounding will continue to have a significant impact on revenues until deliveries resume.

Commercial airplane deliveries, including intercompany deliveries, were as follows:

	737	*	747	767	*	777	†	787	Total
Deliveries during the first six months of 2019	113	(10)	4	22	(14)	22	(1)	78	239
Deliveries during the first six months of 2018	269	(10)	3	9		25		72	378
Deliveries during the second quarter of 2019	24	(6)	2	10	(6)	12		42	90
Deliveries during the second quarter of 2018	137	(5)	1	5		13		38	194
Cumulative deliveries as of 6/30/2019	7,425		1,552	1,155		1,604		859	
Cumulative deliveries as of 12/31/2018	7,312		1,548	1,133		1,582		781	

* Intercompany deliveries identified by parentheses

† Aircraft accounted for as revenues by BCA and as operating leases in consolidation identified by parentheses.

Earnings From Operations

Earnings from operations for the six and three months ended June 30, 2019 decreased by $6,970 million and $6,731 million compared with the same periods in 2018 primarily due to the earnings charge for the 737 MAX grounding of $5,610 million and lower 737 deliveries, partially offset by higher 787 margins . The 737 MAX grounding will continue to adversely impact margins until deliveries resume.

Backlog

Our total backlog represents the estimated transaction prices on unsatisfied and partially satisfied performance obligations to our customers where we believe it is probable that we will collect the consideration due and where no contingencies remain before we and the customer are required to perform. Backlog does not include prospective orders where customer controlled contingencies remain, such as the customer receiving approval from its board of directors, shareholders or government or completing financing arrangements. All such contingencies must be satisfied or have expired prior to recording a new firm order even if satisfying such conditions is highly certain. Backlog excludes options and BCC orders. A number of our customers may have contractual remedies that may be implicated by program delays. We address customer claims and requests for other contractual relief as they arise. The value of orders in backlog is adjusted as changes to price and schedule are agreed to with customers and is reported in accordance with the requirements of Topic 606.

BCA total backlog decreased from $408,140 million as of December 31, 2018 to $390,405 million at June 30, 2019 primarily due to deliveries in excess of new orders and a reduction in backlog related to orders from a customer experiencing liquidity issues.

Accounting Quantity

The following table provides details of the accounting quantities and firm orders by program. Cumulative firm orders represent the cumulative number of commercial jet aircraft deliveries plus undelivered firm orders.

	Program								
As of 6/30/2019	**737**		**747***	**767**	**777**	†	**777X**	**787**	†
Program accounting quantities	**10,400**		**1,574**	**1,195**	**1,690**		**	**1,600**	
Undelivered units under firm orders	**4,415**		**20**	**99**	**82**	(1)	**344**	**555**	(31)
Cumulative firm orders	**11,840**		**1,572**	**1,254**	**1,686**		**344**	**1,414**	

As of 12/31/2018	737	†	747	767	777	†	777X	787	†
Program accounting quantities	10,400		1,574	1,195	1,680		**	1,600	
Undelivered units under firm orders	4,708	(75)	24	111	100	(2)	326	604	(30)
Cumulative firm orders	12,020		1,572	1,244	1,682		326	1,385	

† Aircraft ordered by BCC are identified in parentheses

* At June 30, 2019 , the 747 accounting quantity includes one already completed aircraft that has not been sold and is being remarketed.

** The accounting quantity for the 777X will be determined in the year of first airplane delivery.

Program Highlights

737 Program See the discussion of the 737 MAX Grounding in Note 11 and 19 to our Condensed Consolidated Financial Statements .

747 Program We are currently producing at a rate of 0.5 aircraft per month. We continue to evaluate the viability of the 747 program. We believe that a decision to end production of the 747 at the end of the current accounting quantity would not have a material impact on our financial position, results of operations or cash flows.

767 Program The 767 assembly line includes a 767 derivative to support the tanker program. We are currently producing at a rate of 2.5 per month and plan to increase to 3 per month in 2020.

777 Program The accounting quantity for the 777 program increased by 10 units during the three months ended June 30, 2019 due to the program's normal progress of obtaining additional orders and delivering airplanes. We are currently producing at a rate of 5 per month. In 2013, we launched the 777X, which features a new composite wing, new engines and folding wing-tips. While we are targeting late 2020 for first delivery of the 777X, there is significant risk to this schedule resulting from issues in engine design and development, which are delaying first flight until early 2020. The 777X will have a separate program accounting quantity, which will be determined in the year of first airplane delivery.

787 Program At the end of the first quarter of 2019, we increased the production rate from 12 per month to 14 per month. We delivered the first 787-10 in March 2018.

Additional Considerations

The development and ongoing production of commercial aircraft is extremely complex, involving extensive coordination and integration with suppliers and highly-skilled labor from employees and other partners. Meeting or exceeding our performance and reliability standards, as well as those of customers and regulators, can be costly and technologically challenging. In addition, the introduction of new aircraft and derivatives, such as the 777X, involves increased risks associated with meeting development, production and certification schedules. As a result, our ability to deliver aircraft on time, satisfy performance and reliability standards and achieve or maintain, as applicable, program profitability is subject to significant risks. Factors that could result in lower margins (or a material charge if an airplane program has or is determined to have reach-forward losses) include the following: changes to the program accounting quantity, customer and model mix, production costs and rates, changes to price escalation factors due to changes in the inflation rate or other economic indicators, performance or reliability issues involving completed aircraft, capital expenditures and other costs associated with increasing or adding new production capacity, learning curve, additional change incorporation, achieving anticipated cost reductions, flight test and certification schedules, costs, schedule and demand for new airplanes and derivatives and status of customer claims, supplier assertions and other contractual negotiations. While we believe the cost and revenue estimates incorporated in the consolidated financial statements are appropriate, the technical complexity of our airplane programs creates financial risk as additional completion costs may become necessary or scheduled delivery dates could be extended, which could trigger termination provisions, order cancellations or other financially significant exposure.

Defense, Space & Security

Business Environment and Trends

United States Government Defense Environment Overview

The Bipartisan Budget Act of 2018, passed in February 2018, raised the 2011 Budget Control Act spending caps for fiscal years 2018 and 2019 (FY18 and FY19). The consolidated spending bills signed into law in September 2018 provided defense funding for FY19, in compliance with the revised caps. These bills also provided FY19 appropriations for most of the federal government. The Consolidated Appropriations Act, enacted in February 2019, provided FY19 appropriations for the remaining parts of the federal government, including the National Aeronautics and Space Administration (NASA).

There continues to be uncertainty with respect to future program-level appropriations for the U.S. DoD and other government agencies, including NASA. The 2011 Budget Control Act continues to mandate spending caps on U.S. government discretionary spending for fiscal years 2020 and 2021 (FY20 and FY21) that are lower than FY18 and FY19. As a result, continued budget uncertainty and the risk of future sequestration cuts remain. Future budget cuts or investment priority changes could result in reductions, cancellations and/or delays of existing contracts or programs. Any of these impacts could have a material effect on our results of operations, financial position and/or cash flows.

Funding timeliness also remains a risk. If Congress is unable to pass appropriations bills before the beginning of FY20 on October 1, 2019, a government shutdown could result which may have impacts above and beyond those resulting from budget cuts, sequestration impacts or program-level appropriations. For example, requirements to furlough employees in the U.S. DoD, the Department of Transportation or other government agencies could result in payment delays, impair our ability to perform work on existing contracts, and/or negatively impact future orders. Alternatively, Congress may fund FY20 by passing one or more Continuing Resolutions; however, this could restrict the execution of certain program activities and delay new programs or competitions.

Results of Operations

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Revenues	**$13,223**	$12,581	**$6,612**	$6,100
Earnings from operations	**$1,822**	$1,133	**$975**	$376
Operating margins	**13.8%**	9.0%	**14.7%**	6.2%

Since our operating cycle is long-term and involves many different types of development and production contracts with varying delivery and milestone schedules, the operating results of a particular period may not be indicative of future operating results. In addition, depending on the customer and their funding sources, our orders might be structured as annual follow on contracts, or as one large multi-year order or long-term award. As a result, period-to-period comparisons of backlog are not necessarily indicative of future workloads. The following discussions of comparative results among periods should be viewed in this context.

Deliveries of units for new-build production aircraft, including remanufactures and modifications, were as follows:

	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
F/A-18 Models	**10**	5	**3**	
F-15 Models	**5**	5	**1**	3
CH-47 Chinook (New)	**7**	9		5
CH-47 Chinook (Renewed)	**9**	8	**5**	4
AH-64 Apache (New)	**10**		**4**	
AH-64 Apache (Remanufactured)	**35**	6	**13**	
P-8 Models	**8**	8	**5**	4
KC-46 Tanker	**12**		**5**	
Total	**96**	41	**36**	16

Revenues

BDS revenues for the six months ended June 30, 2019 increased by $642 million compared with the same period in 2018 , primarily due to higher revenues from derivative aircraft, satellites and weapons, partially offset by lower revenue for fighters and C-17 . The favorable impact of cumulative contract catch-up adjustments to revenue for the six months ended June 30, 2019 was $160 million higher than the comparable period in the prior year, reflecting decreased unfavorable adjustments on the KC-46A Tanker.

BDS revenues for the three months ended June 30, 2019 increased by $ 512 million compared with the same period in 2018 , primarily due to higher revenues from derivative aircraft, satellites and weapons . The favorable impact of cumulative contract catch-up adjustments to revenue for the three months ended June 30, 2019 was $ 137 million higher compared with the same period in 2018 , reflecting decreased unfavorable adjustments on the KC-46A Tanker.

Earnings From Operations

BDS earnings from operations for the six and three months ended June 30, 2019 increased by $689 million and $599 million compared with the same periods in 2018 , primarily due to lower KC-46A Tanker reach-forward losses and gains on the sale of property . During the six and three months ended June 30, 2018, BDS recorded reach-forward losses of $498 million and $418 million related to the KC-46A Tanker program.

The favorable impact of cumulative contract catch-up adjustments for the six and three months ended June 30, 2019 was $335 million and $274 million higher than the comparable period in the prior year, reflecting decreased unfavorable adjustments on the KC-46A Tanker.

BDS earnings from operations include equity earnings of $65 million and $12 million for the six and three months ended June 30, 2019 compared to $91 million and $11 million for the same periods in 2018 primarily reflecting earnings on our ULA joint venture.

Backlog

Total backlog increased from $61,277 million at December 31, 2018 to $63,872 million at June 30, 2019 primarily due to current year contract awards including F/A-18 fighters, P-8A Poseidon and E-7 Airborne Early Warning & Control, partially offset by revenue recognized on contracts awarded in prior years.

Additional Considerations

Our BDS business includes a variety of development programs which have complex design and technical challenges. Many of these programs have cost-type contracting arrangements. In these cases, the associated financial risks are primarily in reduced fees, lower profit rates or program cancellation if cost, schedule or technical performance issues arise. Examples of these programs include Ground-based Midcourse Defense , Proprietary and Space Launch System programs.

Some of our development programs are contracted on a fixed-price basis and BDS customers are increasingly seeking fixed priced proposals for new programs. Examples of significant fixed-price development programs include Commercial Crew, USAF KC-46A Tanker, T-X Trainer, VC-25B Presidential Aircraft, MQ-25 Stingray, and commercial and military satellites . New programs could also have risk for reach-forward loss upon contract award and during the period of contract performance. In the third quarter of 2018, we were awarded contracts to develop the T-X Trainer aircraft with complementary devices and the MQ-25 unmanned aerial refueling aircraft. We recorded orders of $1,618 million and recognized losses of $691 million associated with these contracts. Many development programs have highly complex designs. As technical or quality issues arise during development, we may experience schedule delays and cost impacts, which could increase our estimated cost to perform the work or reduce our estimated price, either of which could result in a material charge or otherwise adversely affect our financial condition. These programs are ongoing, and while we believe the cost and fee estimates incorporated in the financial statements are appropriate, the technical complexity of these programs creates financial risk as additional completion costs may become necessary or scheduled delivery dates could be extended, which could trigger termination provisions, the loss of satellite in-orbit incentive payments, or other financially significant exposure. These programs have risk for reach-forward losses if our estimated costs exceed our estimated contract revenues.

KC-46A Tanker In 2011, we were awarded a contract from the U.S. Air Force (USAF) to design, develop, manufacture and deliver four next generation aerial refueling tankers. The KC-46A Tanker is a derivative of our 767 commercial aircraft. This Engineering, Manufacturing and Development (EMD) contract is a fixed-price incentive fee contract valued at $4.9 billion and involves highly complex designs and systems integration. In 2015, we began work on low rate initial production (LRIP) aircraft for the USAF. In 2016, following our achievement of key flight testing milestones, the USAF authorized two LRIP lots for 7 and 12 aircraft valued at $2.8 billion and in 2017, the USAF authorized an additional LRIP lot for 15 aircraft valued at $2.1 billion. On September 10, 2018, the USAF authorized an additional LRIP lot for 18 aircraft valued at $2.9 billion. The contract contains production options for both LRIP aircraft and full rate production aircraft. If all options under the contract are exercised, we expect to deliver 179 aircraft for a total expected contract value of approximately $30 billion.

During 2018, we recorded additional reach-forward losses of $736 million primarily reflecting higher estimated costs associated with certification, flight testing and change incorporation on aircraft, as well as higher than expected effort to meet customer requirements in order to support delivery of the initial aircraft.

As with any development program, this program remains subject to additional reach-forward losses if we experience further production, technical or quality issues.

United Launch Alliance See the discussion of Indemnifications to ULA and Financing Commitments in Notes 5 , 11 and 12 of our Condensed Consolidated Financial Statements.

Sea Launch See the discussion of the Sea Launch receivables in Note 9 to our Condensed Consolidated Financial Statements .

Commercial Crew See the discussion of Fixed-Price Development Contracts in Note 11 to our Condensed Consolidated Financial Statements .

T-X Trainer In September 2018, we were selected by the U.S. Air Force to build the next generation training capability, known as T-X. The program includes aircraft and simulators as well as support and ground equipment. The contract is structured as an indefinite delivery/indefinite quantity (IDIQ) fixed-price contract with a minimum of 206 aircraft and a maximum of 475 aircraft. The EMD contract is a fixed-price contract valued at $813 million and includes five aircraft and seven simulators, with a period of performance that runs through 2022. The production and support contracts are structured as options that begin with authorization from fiscal year 2022 to 2034. In connection with winning this competition, we recorded a reach-forward loss of $400 million associated with anticipated losses on the options for 346 aircraft that we believe are probable of being exercised. We believe that our investment in this contract positions us for additional market opportunities for both trainer and light attack aircraft.

MQ-25 Stingray In August 2018, we were awarded an EMD contract to build the MQ-25 Stingray for the U.S. Navy. The EMD contract is a fixed-price contract that includes development and delivery of four aircraft and test articles at a contract price of $805 million. In connection with winning this competition, we recognized a reach-forward loss of $291 million. The period of performance runs from 2018 through 2024. The MQ-25 Stingray is the U.S. Navy's first operational carrier-based unmanned aircraft, and we believe that our investment in this contract positions us for long-term leadership in autonomy and artificial intelligence technologies along with additional market opportunities.

Global Services

Results of Operations

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Revenues	**$9,162**	$8,047	**$4,543**	$4,097
Earnings from operations	**$1,340**	$1,251	**$687**	$604
Operating margins	**14.6%**	15.5%	**15.1%**	14.7%

Revenues

BGS revenues for the six and three months ended June 30, 2019 increased by $1,115 million and $ 446 million compared with the same periods in 2018 primarily due to the acquisition of KLX, Inc. in the fourth quarter of 2018 and international government services revenue . Net favorable cumulative contract catch-up adjustments to revenue were higher by $24 million and $4 million for the six and three months ended June 30, 2019 compared with the same periods in 2018 .

Earnings From Operations

BGS earnings from operations for the six and three months ended June 30, 2019 increased by $89 million and $ 83 million compared with the same periods in 2018 primarily due to higher revenues . For the six months ended June 30, 2019, earnings from higher revenues were partially offset by less favorable performance and mix. Net favorable cumulative contract catch-up adjustments were higher by $4 million and lower by $9 million for the six and three months ended June 30, 2019 compared with the same periods in 2018 .

Backlog

BGS total backlog decreased from $21,064 million as of December 31, 2018 to $19,974 million at June 30, 2019 , primarily due to revenue recognized on contracts awarded in prior years.

Boeing Capital

Results of Operations

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2019	2018	**2019**	2018
Revenues	**$141**	$137	**$75**	$72
Earnings from operations	**$57**	$44	**$37**	$24
Operating margins	**40%**	32%	**49%**	33%

Revenues

Boeing Capital (BCC) segment revenues consist principally of lease income from equipment under operating lease, interest income from financing receivables and notes, and other income. BCC 's revenues for the six and three months ended June 30, 2019 were largely consistent with the same periods in 2018 .

Earnings From Operations

BCC 's earnings from operations are presented net of interest expense, provision for (recovery of) losses, asset impairment expense, depreciation on leased equipment and other operating expenses. Earnings from operations for the six and three months ended June 30, 2019 increased primarily due to lower operating expenses.

Financial Position

The following table presents selected financial data for BCC :

(Dollars in millions)	**June 30 2019**	December 31 2018
Customer financing and investment portfolio, net	**$2,280**	$2,790
Other assets, primarily cash and short-term investments	**439**	717
Total assets	**$2,719**	$3,507
Other liabilities, primarily deferred income taxes	**$442**	$523
Debt, including intercompany loans	**1,891**	2,487
Equity	**386**	497
Total liabilities and equity	**$2,719**	$3,507
Debt-to-equity ratio	**4.9-to-1**	5.0-to-1

BCC 's customer financing and investment portfolio at June 30, 2019 decreased from December 31, 2018 primarily due to $526 million of note payoffs and portfolio run-off and $250 million related to the impairment of lease incentives, partially offset by new volume.

BCC enters into certain transactions with Boeing, reflected in Unallocated items, eliminations and other, in the form of intercompany guarantees and other subsidies that mitigate the effects of certain credit quality or asset impairment issues on the BCC segment. The $250 million impairment of lease incentives did not result in an earnings charge in the BCC segment because of an intercompany guarantee.

Aircraft subject to leases with a carrying value of approximately $88 million are scheduled to be returned off lease in the next 12 months. We are seeking to remarket these aircraft or have the leases extended.

Liquidity and Capital Resources

Cash Flow Summary

(Dollars in millions)	**Six months ended June 30**	
	2019	2018
Net (loss)/earnings	**($793)**	$4,673
Non-cash items	**1,335**	1,253
Changes in working capital	**1,656**	1,890
Net cash provided by operating activities	**2,198**	7,816
Net cash used by investing activities	**(853)**	(1,295)
Net cash provided/(used) by financing activities	**96**	(7,177)
Effect of exchange rate changes on cash and cash equivalents	**(2)**	(36)
Net increase/(decrease) in cash & cash equivalents, including restricted	**1,439**	(692)
Cash & cash equivalents, including restricted, at beginning of year	**7,813**	8,887
Cash & cash equivalents, including restricted, at end of period	**$9,252**	$8,195

Operating Activities Net cash provided by operating activities was $2.2 billion during the six months ended June 30, 2019 , compared with $7.8 billion during the same period in 2018 . The net loss from operations for the six months ended June 30, 2019 was primarily driven by the $5.6 billion charge for estimated potential concessions and other considerations to 737 MAX customers and did not affect cash flows. The decrease reflects higher spending on inventory and lower growth in advances compared with the prior period. Inventories increase d by $5.9 billion during the six months ended June 30, 2019 primarily due to the suspension of 737 MAX deliveries, which resulted in higher commercial airplane program inventory as we continue to produce 737 MAX aircraft at a rate of 42 per month. Advances and progress billings increased by $1.8 billion and $2.9 billion during the six months ended June 30, 2019 and 2018 . Net cash provided by operating activities in future quarters is expected to be adversely impacted by the 737 MAX grounding.

Investing Activities Cash used by investing activities was $0.9 billion during the six months ended June 30, 2019 , compared with $1.3 billion during the same period in 2018 , primarily due to net proceeds from investments in 2019 as compared with net contributions to investments in 2018 and higher proceeds from property sales in 2019, partially offset by higher cash paid for acquisitions in the first half of 2019. In the six months ended June 30, 2019 and 2018 , capital expenditures totaled $0.9 billion and $0.8 billion . We expect capital expenditures in 2019 to be consistent with 2018 .

Financing Activities Cash provided by financing activities was $0.1 billion during the six months ended June 30, 2019 compared with cash used of $7.2 billion during the same period in 2018 , primarily reflecting higher net borrowings and lower share repurchases partially offset by higher dividend payments in 2019. During the six months ended June 30, 2019 , new borrowings net of repayments increased by $5.2 billion compared with an increase of $0.9 billion in the same period in 2018 .

At June 30, 2019 , the recorded balance of debt was $19.2 billion , of which $4.4 billion was classified as short-term. Debt, including intercompany loans, attributable to BCC totaled $1.9 billion , of which $0.7 billion was classified as short-term.

During the six months ended June 30, 2019 we repurchased 6.9 million shares totaling $2.7 billion through our open market share repurchase program. In addition, 0.6 million shares were transferred to us from employees for tax withholdings. Share repurchases during the six months ended June 30, 2018 totaled $6.0 billion. At June 30, 2019 , the amount available under the share repurchase plan, announced on December 17, 2018, totaled $17.3 billion . Share repurchases under this plan are currently suspended.

Capital Resources We have substantial borrowing capacity. Any future borrowings may affect our credit ratings and are subject to various debt covenants as described below. We have a commercial paper program that serves as a source of short-term liquidity. At June 30, 2019 and December 31, 2018 commercial paper borrowings total $2,987 million and $1,895 million . Currently, we have $6.6 billion of unused borrowing capacity on revolving credit line agreements. We anticipate that these credit lines will primarily serve as backup liquidity to support our general corporate borrowing needs.

Financing commitments totaled $14.3 billion and $19.5 billion at June 30, 2019 and December 31, 2018 . The decrease primarily relates to financing commitment expirations. We anticipate that we will not be required to fund a significant portion of our financing commitments as we continue to work with third party financiers to provide alternative financing to customers. Historically, we have not been required to fund significant amounts of outstanding commitments. However, there can be no assurances that we will not be required to fund greater amounts than historically required. In addition, many of our non-U.S. customers have financed purchases through the Export-Import Bank of the United States. Following the expiration of the bank's charter on June 30, 2015, the bank's charter was reauthorized in December 2015. However, from the time of that reauthorization until May 8, 2019, when the U.S. Senate confirmed members sufficient to constitute a quorum of the bank's board of directors, the bank was not able to approve any transaction totaling more than $10 million. The bank is authorized through September 30, 2019. If the bank's charter is not reauthorized on a timely basis, we may fund additional commitments and/or enter into new financing arrangements with customers. Certain of our non-U.S. customers also may seek to delay purchases if they cannot obtain financing at reasonable costs, and there may be further impacts with respect to future sales campaigns involving non-U.S. customers.

In the event we require additional funding to support strategic business opportunities, our commercial aircraft financing commitments, unfavorable resolution of litigation or other loss contingencies, or other business requirements, including impacts related to the 737 MAX grounding, we expect to meet increased funding requirements by issuing commercial paper or term debt. We believe our ability to access external capital resources should be sufficient to satisfy existing short-term and long-term commitments and plans, and also to provide adequate financial flexibility to take advantage of potential strategic business opportunities should they arise within the next year. However, there can be no assurance of the cost or availability of future borrowings, if any, under our commercial paper program or in the debt markets.

At June 30, 2019 , we were in compliance with the covenants for our debt and credit facilities. The most restrictive covenants include a limitation on mortgage debt and sale and leaseback transactions as a percentage of consolidated net tangible assets (as defined in the credit agreements), and a limitation on consolidated debt as a percentage of total capital (as defined). When considering debt covenants, we continue to have substantial borrowing capacity.

Off-Balance Sheet Arrangements

We are a party to certain off-balance sheet arrangements including certain guarantees. For discussion of these arrangements, see Note 12 to our Condensed Consolidated Financial Statements.

Contingent Obligations

We have significant contingent obligations that arise in the ordinary course of business, which include the following:

Legal Various legal proceedings, claims and investigations are pending against us. Legal contingencies are discussed in Note 19 to our Condensed Consolidated Financial Statements.

Environmental Remediation We are involved with various environmental remediation activities and have recorded a liability of $548 million at June 30, 2019 . For additional information, see Note 11 to our Condensed Consolidated Financial Statements.

Non-GAAP Measures

Core Operating Earnings, Core Operating Margin and Core Earnings Per Share

Our unaudited condensed consolidated interim financial statements are prepared in accordance with Generally Accepted Accounting Principles in the United States of America (GAAP) which we supplement with certain non-GAAP financial information. These non-GAAP measures should not be considered in isolation or as a substitute for the related GAAP measures, and other companies may define such measures differently. We encourage investors to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure. Core operating earnings, and core operating margin and core earnings per share exclude the FAS/CAS service cost adjustment. The FAS/CAS service cost adjustment represents the difference between the FAS pension and postretirement service costs calculated under GAAP and costs allocated to the business segments. Core earnings per share excludes both the FAS/CAS service cost adjustment and non-operating pension and postretirement expenses. Non-operating pension and postretirement expenses represent the components of net periodic benefit costs other than service cost. Pension costs, comprising service and prior service costs computed in accordance with GAAP are allocated to BCA and certain BGS businesses supporting commercial customers. Pension costs allocated to BDS and BGS businesses supporting government customers are computed in accordance with U.S. Government Cost Accounting Standards (CAS), which employ different actuarial assumptions and accounting conventions than GAAP. CAS costs are allocable to government contracts. Other postretirement benefit costs are allocated to all business segments based on CAS, which is generally based on benefits paid.

The Pension FAS/CAS service cost adjustment recognized in earnings was a benefit of $549 million and $275 million for the six and three months ended June 30, 2019 , compared with a benefit of $520 million and $237 million during the same periods in 2018 . The non-operating pension expense included in Other income/(loss), net was a benefit of $187 million and $94 million for the six and three months ended June 30, 2019 compared with $48 million and $6 million for the same periods in 2018 . The benefits in 2019 reflect lower amortization of actuarial losses driven by higher discount rates. This is partially offset by higher interest costs and lower expected returns, as a result of the lower value of plan assets at December 31, 2018 compared to 2017.

For further discussion of pension and other postretirement costs see the Management’s Discussion and Analysis on page 38 of this Form 10-Q and on page 45 of our 2018 Annual Report on Form 10-K. Management uses core operating earnings, core operating margin and core earnings per share for purposes of evaluating and forecasting underlying business performance. Management believes these core earnings measures provide investors additional insights into operational performance as unallocated pension and other postretirement benefit cost, primarily represent costs driven by market factors and costs not allocable to U.S. government contracts.

Reconciliation of GAAP Measures to Non-GAAP Measures

The table below reconciles the non-GAAP financial measures of core operating earnings, core operating margin and core earnings per share with the most directly comparable GAAP financial measures of earnings from operations, operating margins and diluted earnings per share.

(Dollars in millions, except per share data)	**Six months ended June 30**		**Three months ended June 30**	
	2019	2018	**2019**	2018
Revenues	**$38,668**	$47,640	**$15,751**	$24,258
(Loss)/earnings from operations, as reported	**($1,030)**	$5,585	**($3,380)**	$2,710
Operating margins	**(2.7)%**	11.7%	**(21.5)%**	11.2%
Pension FAS/CAS service cost adjustment [(1)]	**($549)**	($520)	**($275)**	($237)
Postretirement FAS/CAS service cost adjustment [(1)]	**($180)**	($162)	**($90)**	($80)
FAS/CAS service cost adjustment [(1)]	**($729)**	($682)	**($365)**	($317)
Core operating (loss)/earnings (non-GAAP)	**($1,759)**	$4,903	**($3,745)**	$2,393
Core operating margins (non-GAAP)	**(4.5)%**	10.3%	**(23.8)%**	9.9%
Diluted earnings per share, as reported	**($1.40)**	$7.88	**($5.21)**	$3.73
Pension FAS/CAS service cost adjustment [(1)]	**(0.97)**	(0.88)	**(0.49)**	(0.40)
Postretirement FAS/CAS service cost adjustment [(1)]	**(0.32)**	(0.27)	**(0.16)**	(0.14)
Non-operating pension expense [(2)]	**(0.32)**	(0.08)	**(0.17)**	(0.01)
Non-operating postretirement expense [(2)]	**0.09**	0.08	**0.05**	0.04
Provision for deferred income taxes on adjustments [(3)]	**0.32**	0.24	**0.16**	0.11
Core (loss)/earnings per share (non-GAAP)	**($2.60)**	$6.97	**($5.82)**	$3.33
Weighted average diluted shares (in millions)	**566.6**	592.9	**565.3**	588.7

(1) FAS/CAS service cost adjustment represents the difference between the FAS pension and postretirement service costs calculated under GAAP and costs allocated to the business segments. This adjustment is excluded from Core operating earnings (non-GAAP).

(2) Non-operating pension and postretirement expenses represent the components of net periodic benefit costs other than service cost. These expenses are included in Other income/(loss), net and are excluded from Core earnings per share (non-GAAP).

(3) The income tax impact is calculated using the U.S. corporate statutory tax rate.

Critical Accounting Policies and Estimates

737 MAX Grounding

On March 13, 2019, the Federal Aviation Administration (FAA) issued an order to suspend operations of all 737 MAX aircraft in the U.S. and by U.S. aircraft operators following two fatal 737 MAX accidents. Non-U.S. civil aviation authorities have issued directives to the same effect. The grounding is having a significant adverse impact on our operations and creates significant uncertainty.

Multiple legal actions have been filed against us as a result of the October 29, 2018 accident of Lion Air Flight 610 and the March 10, 2019 accident of Ethiopian Airlines Flight 302. Further, we are fully cooperating with all ongoing governmental and regulatory investigations and inquiries relating to the accidents and the 737 MAX program. We cannot reasonably estimate a range of loss, if any, that may result given the ongoing status of these lawsuits, investigations, and inquiries. We have also experienced claims and/or assertions from customers in connection with the grounding.

In the preparation of our financial statements, we have made assumptions regarding outcomes of accident investigations, timing and conditions of return to service, timing of future 737 production rate increases, supplier readiness to support production rate changes, timing and sequence of future customer deliveries as well as outcomes of negotiations with customers impacted by the grounding. These assumptions are highly uncertain and significantly affect the estimates inherent in our financial statements.

The 737 MAX grounding also affects projected revenues and costs associated with the 737 program accounting quantity. As a result of the grounding, we have reduced the 737 production rate from 52 per month to 42 per month and continue to evaluate further reductions in production rate, including a temporary shutdown in 737 production. Prior to the grounding, we had planned to increase the production rate to 57 per month in 2019. The FAA and other civil aviation authorities will determine the timing and conditions of the 737 MAX's return to service. At June 30, 2019, we have assumed that regulatory approval of 737 MAX return to service in the U.S. and other jurisdictions begins early in the fourth quarter of 2019. We have further assumed a gradual increase in the production rate from 42 per month to 57 per month in 2020, and that deliveries of 737 MAX airplanes in inventory will occur over several quarters following return to service. The resulting impacts increased estimated costs to produce aircraft included in the current accounting quantity by $1,016 million and $1,748 million in the first and second quarters of 2019 and reduced 737 program and overall BCA segment operating margins. If the timing and conditions surrounding a return to service differ from our assumptions, it could have a material effect on our financial statements.

We recorded an earnings charge of $5,610 million, net of estimated insurance recoveries of $500 million, in the second quarter in connection with an estimate of potential concessions and other considerations to customers for disruptions related to the 737 MAX grounding and associated delivery delays. This charge represents our current best estimate of future concessions and other considerations we expect to provide to customers. This estimate relies on the exercise of judgment by management and is significantly impacted by the assumptions described above, as well as the status of negotiations with our customers. Any delays in return to service, further disruptions to our production system, supplier claims or assertions, or changes to estimated concessions and other considerations we expect to provide to customers could have a material adverse effect on our financial position, results of operations, and/or cash flows.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no significant changes to our market risk since December 31, 2018 .

Item 4. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures.

Our Chief Executive Officer and Chief Financial Officer have evaluated our disclosure controls and procedures as of June 30, 2019 and have concluded that these disclosure controls and procedures are effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

(b) Changes in Internal Control Over Financial Reporting.

There were no changes that occurred during the second quarter of 2019 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Part II. Other Information

Item 1. Legal Proceedings

Currently, we are involved in a number of legal proceedings. For a discussion of contingencies related to legal proceedings, see Note 19 to our Condensed Consolidated Financial Statements, which is hereby incorporated by reference.

Item 1A. Risk Factors

Certain risks described below update the risk factors in Part I, Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2018 .

The 737 MAX fleet is currently grounded, and we are subject to a number of risks and uncertainties related to the timing and conditions surrounding the aircraft's return to service, including potential future reductions to the production rate and/or additional delivery delays, as well as risks associated with assumptions and estimates made in our financial statements regarding the 737 program.

On March 13, 2019, the Federal Aviation Administration (FAA) issued an order to suspend operations of all 737 MAX aircraft in the U.S. and by U.S. aircraft operators following two fatal 737 MAX accidents. Non-U.S. civil aviation authorities have issued directives to the same effect. We are working closely with the relevant government authorities to support both accident investigations and are fully cooperating with other U.S. government investigations related to the accidents. Multiple legal actions have also been filed against us as a result of the accidents. While production continues on the 737 MAX, deliveries have been suspended until clearance is granted by the appropriate regulatory authorities. The grounding has reduced revenues, operating margins, and cash flows, and will continue to do so until deliveries resume and production rates increase. In connection with the effort to restore the 737 MAX to service, we have been developing a software update to the Maneuvering Characteristics Augmentation System, or MCAS, on the 737 MAX, together with an associated pilot training and supplementary education program. Further, on June 26, 2019, the FAA directed us to address a specific condition of flight, unrelated to MCAS, that the planned software update did not previously address. We agreed with the FAA's decision, and are currently working on the software to address this requirement, and we will not offer the 737 MAX for certification until we have satisfied all requirements for certification and the safe return of the 737 MAX to service. Any unanticipated delays in certification and/or return to service or other liabilities associated with the accidents or grounding could have a material adverse effect on our financial position, results of operations, and/or cash flows.

On April 5, 2019, we announced plans to reduce the 737 production rate from 52 aircraft per month to 42 per month effective April 15, 2019. In addition to being unable to deliver completed aircraft until the required certifications are obtained, impacts related to the reduced production rate have increased costs to produce aircraft included in the current accounting quantity and reduced 737 program and overall BCA segment operating margins. If we are unable to return the 737 MAX aircraft to service in one or more jurisdictions or begin deliveries to customers in a timely manner, we would incur additional costs and/or further reduce the 737 production rate. In addition, unanticipated delays in certification and/or return to service of the 737 MAX in one or more jurisdictions could result in significant additional disruption to the 737 production system, including further reductions in the production rate and/or a temporary shutdown in 737 production, delaying efforts to restore and/or implement previously planned increases in the 737 production rate. Cash flows could also be negatively impacted through a combination of delayed payments from customers and higher costs and inventory levels. In addition, we have experienced claims and assertions from customers in connection with the grounding, and we recorded an earnings charge of $5,610, net of estimated insurance recoveries of $500, in the second quarter in connection with an estimate of potential concessions and other considerations to customers for disruptions related to the grounding and associated delivery delays. Any such delays in return to service, further disruptions to our production system, supplier claims or assertions, or changes to estimated concessions or other considerations we expect to provide to customers could have a material adverse effect on our financial position, results of operations, and/or cash flows. The FAA and other civil aviation authorities will determine the timing and conditions of return to service. However, for purposes of our second-quarter financial results, we have assumed that regulatory approval of 737 MAX return to service in the U.S. and other jurisdictions begins early in the fourth quarter of 2019. This estimate reflects our best estimate at this time based on factors such as the expected effort required to complete the required software upgrades and estimated duration of the certification process. In the event of unanticipated additional training requirements in one or more jurisdictions, delays in the certification process, and/or delays in return to service, we may be required to take actions with longer-term impact, such as further production rate changes, employment reductions and/or the expenditure of significant resources to support our supply chain and/or customers.

As with our other commercial aircraft programs, we have made significant estimates with respect to the 737 program regarding the number of units to be produced, the period during which those units are likely to be produced, and the units' expected sales prices, production costs, program tooling and other non-recurring costs, and routine warranty costs. In addition to the estimated timing of return to service, we have made assumptions regarding outcomes of accident investigations, timing of future 737 production rate increases, timing and sequence of future deliveries, as well as outcomes of negotiations with customers. Any changes in these estimates and/or assumptions with respect to the 737 program could have a material impact on our financial position, results of operations, and/or cash flows. For additional information, see our discussion under "Management's Discussion and Analysis-Critical Accounting Policies and Estimates-737 MAX Grounding" on page 52 .

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

Issuer Purchases of Equity Securities

The following table provides information about purchases we made during the quarter ended June 30, 2019 of equity securities that are registered by us pursuant to Section 12 of the Exchange Act:

(Dollars in millions, except per share data)

	(a)	(b)	(c)	(d)
	Total Number of Shares Purchased [(1)]	Average Price Paid per Share	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 [(2)]
4/1/2019 thru 4/30/2019	804,577	$387.64	800,641	$17,349
5/1/2019 thru 5/31/2019	5,220	377.62		17,349
6/1/2019 thru 6/30/2019	2,847	359.24		17,349
Total	812,644	$387.48	800,641	

(1) We purchased an aggregate of 800,641 shares of our common stock in the open market pursuant to our repurchase program and 12,003 shares transferred to us from employees in satisfaction of minimum tax withholding obligations associated with the vesting of restricted stock units during the period. We did not purchase shares in swap transactions.

(2) On December 17, 2018, we announced a new repurchase plan for up to $20 billion of common stock, replacing the plan previously authorized in 2017. Share repurchases under this plan are currently suspended.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

10.1	The Boeing Company Executive Supplemental Savings Plan, as amended and restated effective January 1, 2020.*
15	Letter from Independent Registered Public Accounting Firm regarding unaudited interim financial information
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Management contract or compensatory plan

Signature

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.

	THE BOEING COMPANY
	(Registrant)
July 24, 2019	/s/ Robert E. Verbeck
(Date)	Robert E. Verbeck – Senior Vice President, Finance and Corporate Controller

EXHIBIT 10.1

THIS DOCUMENT CONSTITUTES PART OF A PROSPECTUS COVERING SECURITIES THAT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED

THE BOEING COMPANY

EXECUTIVE SUPPLEMENTAL SAVINGS PLAN

AS AMENDED AND RESTATED

EFFECTIVE JANUARY 1, 2020

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ARTICLE I
Introduction

The Supplemental Benefit Plan for Employees of The Boeing Company (the "Plan") was originally established effective January 1, 1978, by The Boeing Company. The Plan was amended and restated effective January 1, 2008, to comply with section 409A of the Code. The Plan was subsequently amended and restated (i) as of January 1, 2009, for the purpose of expanding the Restoration Benefit, and for the purpose of adding an Executive SBP+ Company Contribution and a DC SERP benefit, (ii) as of January 1, 2016, for the purpose of making clarifying changes to the Plan, eliminating certain provisions that are no longer applicable, and adding a new appendix (now Appendix A) to the Plan to list the entities whose employees are excluded from Plan participation, (iii) as of July 1, 2018, for the purpose of reflecting the delegation of certain amendment authority to the Administrator and its delegate and to reflect the delegation of administrative authority over certain claims and appeals with respect to benefits for elected officers of the Company to the Compensation Committee of the Board of Directors, and (iv) as of January 1, 2019, for the purpose of renaming the Plan and redesigning the executive deferred compensation program. Effective as of January 1, 2020, the Plan is amended and restated to provide that individuals who are elected officers of the Company or individuals who are hired on to (or promoted up to) the E-Series Payroll on or after January 1, 2020, shall not be eligible to receive DC SERP Contributions.

The Plan provides four separate benefits (provided that the benefits described in paragraphs (ii) and (iii) below are aggregated for purposes of payment elections):

(i) the Restoration Benefit, the purpose of which is to restore the benefits of certain employees under The Boeing Company Voluntary Investment Plan ("VIP"), to the extent that these qualified plan benefits are limited by Code sections 415 and 401(a)(17);

(ii) Executive SSP+ Company Contributions, the purpose of which is to provide an additional contribution to this Plan equal to a percentage of the annual incentive plan payments for a select group of management or highly compensated employees; and

(iii) the DC SERP, the purpose of which is to provide a supplemental retirement benefit for a select group of management and highly compensated employees; and

(iv) Extra Deferrals, the purpose of which is to provide a means by which eligible employees may defer payment of their base salaries and awards made under eligible incentive compensation plans (a traditional deferred compensation benefit).

For periods prior to January 1, 2019, "Restoration SSP+ Company Contributions" were called "SBP+ Company Contributions" and "Executive SSP+ Company Contributions" were called "Executive SBP+ Company Contributions;" however, amounts attributable to such contributions are subject to the same terms of the Plan as those that apply to newly named Restoration SSP+ Company Contributions and Executive SSP+ Company Contributions, as applicable.

For periods prior to January 1, 2019, benefits similar to the benefit described in paragraph (iv) above were provided pursuant to the Deferred Compensation Plan for Employees of The Boeing Company. The Deferred Compensation Plan for Employees of The Boeing Company was frozen effective December 31, 2018.

For periods prior to January 1, 1999, the Plan also restored participants' benefits under The Boeing Company Employee Retirement Plan and The Boeing Company Employee Financial Security Plan, to the extent these benefits were limited by sections 415 and 401(a)(17) of the Code. For the period January 1, 1987 through May 31, 1987, the Plan also restored benefits reduced by the limitation on elective deferrals imposed by section 402(g)(1) of the Code.

The Plan is a nonqualified deferred compensation plan subject to Code section 409A. It is also intended that the Plan shall be an excess benefit plan as defined in section 3(36) of the Employee Retirement Income Security Act of 1974, as amended (ERISA), to the extent benefits are paid in excess of the limits imposed by Code section 415. To the extent any part of the Plan is not an excess benefit plan, it is intended that the Plan is an unfunded plan maintained primarily for the purpose of providing deferred compensation to a select group of management or highly compensated employees under sections 201(2), 301(a)(3), and 401(a)(1) of ERISA.

ARTICLE II
Definitions

2.1 **Account**

"Account" means the recordkeeping account established for each Participant, for purposes of accounting for the allocations made hereunder and the Earnings Credits thereon. Each Account will consist of the following sub-accounts:

(a) the Restoration Benefit Account (consisting of Restoration Deferrals, Restoration Matching Contributions and Restoration SSP+ Company Contributions); and

(b) the Executive Benefit Account (consisting of Executive SSP+ Company Contributions and DC SERP Contributions); and

(c) the Extra Deferral Account (consisting of Base Salary Deferrals, Cash Incentive Deferrals and Vested Performance Award Deferrals).

2.2 **Administrator**

"Administrator" means the Employee Benefit Plans Committee of The Boeing Company.

2.3 **"Affiliate" or "Subsidiary"**

"Affiliate" or "Subsidiary" means a member of a controlled group of corporations (as defined in Code section 1563(a), determined without regard to Code sections 1563(a)(4) and (e)(3)(c)), a group of trades or businesses (whether incorporated or not) which are under common control within the meaning of Code section 414(c), or an affiliated service group (as defined in Code sections 414(m) or 414(o)), in each case of which The Boeing Company is a part.

2.4 **Authorized Period of Absence**

"Authorized Period of Absence" means a leave of absence approved by the Company.

2.5 **Base Salary**

"Base Salary" means an Employee's base pay from the Company. For clarity, this is the same as an Employee's "Compensation" as such term is defined under the VIP, but determined (A) without regard to the limitation on such compensation under Code section 401(a)(17) and (B) prior to any deferrals of compensation made hereunder. Notwithstanding anything herein to the contrary, Base Salary does not include amounts earned while an Employee is represented by a union with a collective bargaining agreement covering such Employee that does not provide for participation in the Plan.

In no event will Base Salary include payments under any incentive compensation or performance award plan, without regard to whether they are included in the definition of "Compensation" under the VIP.

2.6 **Base Salary Deferrals**

"Base Salary Deferrals" means deferrals of Base Salary pursuant to Article III.

2.7 **Base Salary Rate**

"Base Salary Rate" means an Employee's annual base rate of pay from the Company.

2.8 **Beneficiary**

"Beneficiary" means the person or persons designated by a Participant under the VIP to receive any benefit payable from the VIP upon the death of the Participant. If no designation is filed under the VIP, or if the designated beneficiary does not survive the Participant, the default beneficiary rules stated in the VIP will apply to determine the Beneficiary.

2.9 **Board of Directors**

"Board of Directors" means the board of directors of The Boeing Company.

2.10 **BSS Plan**

"BSS Plan" means the BSS Retirement Plan, as amended.

2.11 **Cash Incentive**

"Cash Incentive" means the amount awarded to the Participant under The Boeing Company Elected Officer Annual Incentive Plan or the Incentive Compensation Plan for Employees of The Boeing Company and Subsidiaries, as applicable.

Cash Incentive deferred by the Participant under Article III will be deemed to have been paid as if those amounts had not been deferred, for purposes of calculating Executive SSP+ Company Contributions under Article IV.

Cash Incentive that is paid after a Participant's termination of employment from the Controlled Group will remain subject to the Participant's deferral election under Article III, but will not be counted for purposes of calculating the Executive SSP+ Company Contribution under Article IV.

2.12 **Cash Incentive Deferrals**

"Cash Incentive Deferrals" means deferrals of Cash Incentive under Article III.

2.13 **Code**

"Code" means the Internal Revenue Code of 1986, as amended.

2.14 **Company**
"Company" means The Boeing Company, its successors in interest, and any Affiliate or Subsidiary that has adopted this Plan with the consent of The Boeing Company. An Affiliate or Subsidiary is deemed to have adopted this Plan if the Affiliate or Subsidiary (a) participates in the VIP and (b) is not an excluded employer for purposes of this Plan. A list of excluded employers, as updated from time to time, is attached hereto as Appendix A.

2.15 **Company Contributions**
"Company Contributions" mean Restoration Matching Contributions, Restoration SSP+ Company Contributions, Executive SSP+ Company Contributions, and DC SERP Contributions.

2.16 **Compensation**
"Compensation" means a Participant's Base Salary, Cash Incentive, and Performance Awards.

2.17 **Compensation Committee**
"Compensation Committee" means the Compensation Committee of the Board of Directors.

2.18 **Contribution Credit**
"Contribution Credit" means the applicable percentage used to compute an eligible Participant's DC SERP Contributions under Section 4.4.

2.19 **Controlled Group**
"Controlled Group" means the Company and any Affiliate or Subsidiary.

2.20 **DC SERP Contributions**
"DC SERP Contributions" means the contributions allocated pursuant to Section 4.4.

2.21 **Deferral Election**
"Deferral Election" means the elections made by an Eligible Employee to defer a portion of his or her eligible Compensation in accordance with Article III, including any Restoration Deferral Election and any Extra Deferral Election.

2.22 **E-Series Payroll**
"E-Series Payroll" means the executive designation of level E-1 to E-5 at the Company.

2.23 **Earnings Credits**

"Earnings Credits" means the adjustment to a Participant's Account under Section 7.2, which may be positive or negative.

2.24 **Election Period**

"Election Period" means the period or periods established by the Administrator during which an eligible Employee may submit Deferral Elections, all in accordance with such timing and other requirements as the Administrator may establish and, in all cases, the applicable rules under Code section 409A. In no event will an Election Period expire later than December 31 of the Plan Year in which the election is made. Different rules apply with respect to the Mid-Year Election Period, as defined later in this Article II.

2.25 **Eligibility Determination Date**

"Eligibility Determination Date" means (a) for purposes of Section 3.1, with respect to any Plan Year, the November 1 of the preceding Plan Year, and (b) for purposes of Section 3.2, the June 15 immediately preceding the Mid-Year Election Period.

2.26 **Eligible Employee**

"Eligible Employee" means, with respect to any Plan Year (or, if applicable, the Mid-Year Participation Period), an Employee who has satisfied the requirements to make Extra Deferrals under Section 3.1(A) or 3.2(A), to make Restoration Deferrals under Section 3.1(B) or 3.2(B), to receive allocations of Restoration Matching Contributions under Section 4.1, to receive allocations of Restoration SSP+ Company Contributions under Section 4.2, to receive allocations of Executive SSP+ Company Contributions under Section 4.3, and/or to receive allocations of DC SERP Contributions under Section 4.4, as applicable.

Notwithstanding the foregoing, an Employee shall not be considered an Eligible Employee hereunder if the Administrator has excluded his or her employer from participation in the Plan. A list of excluded employers, as updated from time to time, is attached hereto as Appendix A.

2.27 **Employee**

"Employee" means any person who is employed by any member of the Controlled Group, is designated as a common law employee on such member's payroll, and is assigned by such member to the E-Series Payroll.

2.28 **Extra Deferral**

"Extra Deferral" means any Base Salary Deferral, Cash Incentive Deferral or Vested Performance Award Deferral that a Participant elects to defer on a pre-tax basis in accordance with Section 3.1(A) and, to the extent applicable, Section 3.2(A).

2.29 **Executive SSP+ Company Contribution**
"Executive SSP+ Company Contribution" means the benefit provided under Section 4.3.

2.30 **Mid-Year Election Period**
"Mid-Year Election Period" means, for any Employee who satisfies the requirements of Section 3.2, the period specified by the Administrator, which generally shall be the month of July preceding the Mid-Year Participation Period.

2.31 **Mid-Year Participation Period**
"Mid-Year Participation Period" means, for any Employee who satisfies the requirements of Section 3.2, the period beginning on August 1 immediately following the Mid-Year Election Period and ending on December 31 of the same year.

2.32 **Participant**
"Participant" means an Eligible Employee who has elected to defer Compensation or who is eligible to receive a Company Contribution hereunder, or for purposes of Articles V through X, an Employee or former Employee who has amounts credited to his or her Account.

2.33 **Participant Deferrals**
"Participant Deferrals" mean Extra Deferrals and Restoration Deferrals.

2.34 **Performance Awards**
"Performance Awards" means any award designated as such under The Boeing Company's 2003 Incentive Stock Plan and any successor or other long-term incentive plan that may be maintained by the Company from time to time.

2.35 **Plan**
"Plan" means The Boeing Company Executive Supplemental Savings Plan as herein set forth, together with any amendments that may be adopted from time to time.

2.36 **Plan Year**
"Plan Year" means the calendar year.

2.37 **PVP**
"PVP" means The Pension Value Plan for Employees of The Boeing Company, as amended.

2.38 **Restoration Deferral**

"Restoration Deferral" means the portion of a Participant's Compensation, if any, that he or she elects to defer on a pre-tax basis under this Plan in accordance with Section 3.1(B) and, to the extent applicable, Section 3.2(B).

2.39 **Restoration Matching Contributions**

"Restoration Matching Contributions" means the amount credited to a Participant's Account under Section 4.1.

2.40 **Restoration SSP+ Company Contribution**

"Restoration SSP+ Company Contribution" means the amount credited to a Participant's Account under Section 4.2.

2.41 **Separation from Service**

"Separation from Service" or "Separates from Service" means an Employee's death, retirement or termination of employment from the Controlled Group within the meaning of Code section 409A. For purposes of determining whether a Separation from Service has occurred, Affiliates and Subsidiaries are defined by using the language "at least 80 percent" to define the controlled group under Code section 1563(a) in lieu of the 50 percent default rule stated in Treasury Regulation section 1.409A-1(h)(3).

A Separation from Service is deemed to include a reasonably anticipated permanent reduction in the level of services performed by an Employee to less than 50 percent of the average level of services performed by the Employee during the immediately preceding 36-month period.

2.42 **Service**

"Service" means the Participant's years of service with the Controlled Group, determined in the same manner as the service time calculation under the Boeing Service Awards Program procedure, in completed whole years.

2.43 **Specified Employee**

"Specified Employee" means an Employee who is a "specified employee" within the meaning of Code section 409A. Specified Employee status is determined on the last day of the prior Plan Year, to take effect as of April 1 of the Plan Year for a 12-month period. Notwithstanding the foregoing, Specified Employees shall be determined by including the employees who are reasonably determined to be the 75 top-paid officers of the Controlled Group as of the determination date, rather than the 50 top-paid officers as provided under Code section 416(i)(1)(A), to the extent permitted under Code section 409A.

2.44 **Unforeseeable Emergency**

"Unforeseeable Emergency" means "unforeseeable emergency" within the meaning of Code section 409A, as determined by the Administrator.

2.45 **Vested Performance Award Deferrals**

"Vested Performance Award Deferrals" means deferrals of Performance Awards under Article III.

2.46 **VIP**

"VIP" means The Boeing Company Voluntary Investment Plan, as amended.

ARTICLE III
Participant Deferrals

3.1 **Annual Participation and Deferrals - Eligibility**

The Plan's Participant Deferral program has two components - the Extra Deferral component and the Restoration Deferral component - which provide opportunities for Eligible Employees to defer eligible Compensation to the Plan on a pre-tax basis.

(A) Extra Deferral Component

An Employee is eligible to make an Extra Deferral Election for a Plan Year if he or she is paid on a U.S. dollar-based payroll as of the Eligibility Determination Date.

In any Extra Deferral Election, an Eligible Employee may defer up to a maximum of: (i) in the case of Base Salary Deferrals, 50% of his or her Base Salary payable in the Plan Year to which the Deferral Election applies, (ii) in the case of Cash Incentive Deferrals, 100% of his or her Cash Incentive earned in the Plan Year to which the Deferral Election applies (even if payable in a subsequent Plan Year), and/or (iii) in the case of Vested Performance Award Deferrals, 100% of his or her Performance Awards granted in the Plan Year to which the Deferral Election applies, which grant generally covers the next three (3) Plan Years (even if payable in a subsequent Plan Year). For clarity, Extra Deferrals will be made without regard to the Code section 401(a)(17) and 415(c) limitations.

(B) Restoration Deferral Component

An Employee is eligible to make a Restoration Deferral Election for a Plan Year if he or she satisfies each of the conditions described in (i) - (iii) as of the Eligibility Determination Date:

i. the Employee is eligible to participate in the VIP during such Plan Year;

ii. The Employee is not eligible to participate in The Boeing Company Supplemental Savings Plan for the Plan Year; and

iii. the Employee's Base Salary Rate equals or exceeds the amount (rounded down to the nearest $1,000 increment) calculated by dividing (1) the dollar limit imposed by Code section 415(c) for the Plan Year that includes the Eligibility Determination Date, by (2) the sum of the following percentages as in effect for the Plan Year that includes the Eligibility Determination Date (or such other percentages approved by the Administrator by the Eligibility Determination Date to take effect under the VIP as of the following January), as applicable:

   (a) The maximum percentage that an Employee can elect to contribute on a pre-tax, after-tax and/or Roth basis under the VIP;

   (b) The maximum percentage that an Employee can receive as an Employer Matching Contribution under the VIP; and

   (c) The maximum percentage that the Employee can receive as a VIP+ Company Contribution under the VIP, based on the Employee's anticipated age at the end of the Plan Year of participation.

In any Restoration Deferral Election, the Eligible Employee may elect a deferral percentage up to the maximum percentage of his or her Base Salary determined in accordance with Section 3.1(B)(iii)(a) above. Restoration Deferrals will be made from the Eligible Employee's Base Salary only after either: (1) Base Salary for the applicable Plan Year reaches the limitation under Code section 401(a)(17), as indexed, for such Plan Year or (2) the Participant's annual additions under the VIP for the applicable Plan Year reach the dollar limitation of Code section 415(c), as indexed.

3.2 **Mid-Year Participation- Eligibility**

This Section 3.2 sets forth special rules that permit certain "newly eligible" Employees to make Extra Deferral Elections or Restoration Deferral Elections with respect to the Mid-Year Participation Period. For any Plan Year following the Mid-Year Participation Period, an Employee's eligibility to make a Restoration Deferral Election or an Extra Deferral Election will be determined in accordance with Section 3.1.

An Employee will be considered "newly eligible" for this purpose if the Employee (i) is hired or rehired into an Eligible Employee position from November 2 of any Plan Year through June 15 of the following Plan Year, (ii) was not eligible to participate in the Plan or in a deferred compensation plan that is aggregated with the Plan under the aggregation rules of section 409A of the Code (including The Boeing Company Supplemental Savings Plan), other than the crediting of earnings, within the 24-month period immediately preceding the Eligibility Determination Date (or, has taken a full distribution of his or her interest in such plan), and (iii) is paid on a U.S. dollar-based payroll as of the Eligibility Determination Date.

(A) Extra Deferral Component

All "newly eligible" Employees are eligible to make an Extra Deferral Election with respect to a Mid-Year Participation Period.

In any Extra Deferral Election with respect to the Mid-Year Participation Period, an Eligible Employee may defer up to a maximum of: (i) 50% of the Base Salary earned and payable in each full regular pay period during the Mid-Year Participation Period and (ii) 100% of the Cash Incentive earned during the Mid-Year Participation Period. Performance Awards may not be deferred during the Mid-Year Participation Period.

(B) Restoration Deferral Component

A "newly eligible" Employee is eligible to make a Restoration Deferral Election with respect to the Mid-Year Participation Period if he or she satisfies each of the conditions described in (i) and (ii) below as of the Eligibility Determination Date:

i. the Employee is eligible to participate in the VIP; and
ii. the Employee's Base Salary payable for the Plan Year (or portion of the Plan Year) that includes the Mid-Year Participation Period is expected (based on actual Base Salary paid through the Eligibility Determination Date and projected base salary for the remainder of the Plan Year) to equal or exceed the amount (rounded down to the nearest $1,000 increment) calculated by dividing (1) the dollar limit imposed by Code section 415(c) for the Plan Year which includes the Mid-Year Participation Period, by (2) the sum of the following percentages as in effect for the Plan Year that includes the Eligibility Determination Date (or such other percentages approved by the Administrator by the Eligibility Determination Date to take effect under the VIP as of the following January):
    (a) The maximum percentage that an Employee can elect to contribute on a pre-tax, after-tax and/or Roth basis under the VIP;
    (b) The maximum percentage that an Employee can receive as an Employer Matching Contribution under the VIP; and

(c) The maximum percentage that the Employee can receive as a VIP+ Company Contribution under the VIP for the Plan Year that includes the Mid-Year Participation Period, based on the Employee's anticipated age at the end of such Plan Year.

In any Restoration Deferral Election with respect to a Mid-Year Participation Period, the Eligible Employee will be permitted to make a Restoration Deferral Election with respect to Base Salary earned and payable in each full regular pay period in the Mid-Year Participation Period up to the maximum percentage of his or her Base Salary for such period determined in accordance with Section 3.1(B)(iii)(a) above. Restoration Deferrals will be made from the Eligible Employee's Base Salary only after either: (1) Base Salary for the applicable Plan Year reaches the limitation under Code section 401(a)(17), as indexed, for such Plan Year or (2) the Participant's annual additions under the VIP for the applicable Plan Year reach the dollar limitation of Code section 415(c), as indexed.

3.3 **Deferral Elections**

An Eligible Employee may elect to defer a percentage of his or her eligible Compensation for a Plan Year (or, if applicable, the Mid-Year Participation Period) on a pre-tax basis by executing and delivering one or more timely Deferral Election(s) in accordance with the provisions of this Section 3.3. The type and amount of eligible Compensation that may be deferred is described in Section 3.1 (for annual deferrals) and Section 3.2 (for mid-year deferrals). In all cases, Participant Deferrals will be credited to the Participant's Account on the date the Compensation would otherwise have been payable, or as soon thereafter as administratively feasible.

Notwithstanding anything herein to the contrary, to the extent any Eligible Employee had in effect an active (A) Restoration Deferral Election under this Plan immediately prior to its amendment and restatement as of January 1, 2019 and does not timely change such Restoration Deferral Election with respect to the Plan Year beginning on January 1, 2019, such Eligible Employee shall be deemed to have continued such active Restoration Deferral Election with respect to the Plan Year beginning on January 1, 2019 and (except as otherwise provided below for Employees who cease to be Eligible Employees) future Plan Years on an "evergreen basis" unless and until such Eligible Employee changes such Restoration Deferral Election in accordance with this Section 3.3; or (B) election to defer compensation under the Deferred Compensation Plan for Employees of The Boeing Company immediately prior to that plan's amendment and restatement as of January 1, 2019 and fails either to make a timely Extra Deferral Election or to indicate affirmatively that he or she does not wish to make an Extra Deferral Election with respect to the Plan Year beginning on January 1, 2019, such Eligible Employee shall be deemed to have made an Extra Deferral Election identical to such election to defer compensation under the Deferred Compensation Plan for Employees of The Boeing Company with respect to the Plan Year beginning on January 1, 2019 and (except as otherwise provided below for Employees who cease to be Eligible Employees) future Plan Years on an "evergreen basis" unless and until such Eligible Employee changes such Extra Deferral Election in accordance with this Section 3.3.

(A) <u>Deferral Elections</u>

A Participant's Deferral Election(s) must be executed and delivered to the Company in accordance with rules established by the Administrator. An Employee may make separate Extra Deferral Elections with respect to Base Salary, Cash Incentive and Performance Awards and/or a separate Restoration Deferral Election with respect to Base Salary, each to the extent described in Section 3.1 or 3.2, as applicable.

Participants may execute new Deferral Elections to defer eligible Compensation payable in each succeeding Plan Year. An Employee's Deferral Election will be "evergreen" - it will carry-over from Plan Year to Plan Year (or from the Mid-Year Participation Period to the subsequent Plan Year) unless it is changed or cancelled in accordance with rules established by the Administrator or as otherwise provided in this Plan.

In the case of an Employee who ceases to be an Eligible Employee during the Plan Year (e.g., due to a reclassification as other than E-Series Payroll or Separation from Service) the Employee's Deferral Election(s) shall remain in effect with respect to the Plan Year in which the Employee ceases to be an Eligible Employee, but will automatically be cancelled with respect to future Deferrals (i.e., Deferrals with respect to subsequent Plan Years).

(B) Distribution Elections

Deferral Elections will include an option to elect the form and timing of distribution with regard to the Participant Deferrals, as described in Article VI, as applicable.

Any election made as to the form and timing of distribution with respect to Restoration Deferrals will apply to the Participant's entire Restoration Account.

(C) Timing and Irrevocability of Elections

In general, the Deferral Election must be filed during the Mid-Year Election Period or Election Period, as applicable.

Deferral Elections with respect to a full Plan Year will generally become irrevocable as of the end of the Election Period. Deferral Elections with respect to a Mid-Year Participation Period will become irrevocable as of the last day of the Mid-Year Election Period, i.e., the date immediately preceding the date the Employee becomes eligible to participate in the Plan, in satisfaction of the requirements under Treas. Reg. Section 1.409A-2(a)(7)(i) and (ii).

Elections generally may not be modified during the Plan Year. Likewise, an Employee who makes a Restoration Deferral Election will be subject to restrictions on mid-year contribution election changes under the VIP, in accordance with the terms of the VIP.

See Section 3.4 for a limited exception to the general rule on the irrevocability of Deferral Elections, in the event of Unforeseeable Emergency.

(D) No Mid-Year Elections

Except as provided in this Article III with respect to the Mid-Year Participation Period applicable to certain newly eligible Employees, an Employee who becomes an Eligible Employee during a Plan Year (including as a result of a promotion or salary increase) will not be eligible to make Participant Deferrals during such Plan Year.

3.4 **Cancellation of Deferral Election Due to Unforeseeable Emergency**

Notwithstanding the irrevocability rule described in Section 3.3, a Participant will be permitted to cancel an existing Deferral Election with regard to a Plan Year during that Plan Year (or with regard to the Mid-Year Participation Period, during that period), if the Participant incurs an Unforeseeable Emergency, as determined by the Administrator.

If a Participant has elected and received a distribution due to an Unforeseeable Emergency under Section 6.1(I), the Participant will be deemed to have elected to cancel his or her Deferral Election for the remainder of the applicable Plan Year or Mid-Year Participation Period.

ARTICLE IV
Company Contributions

4.1. **Restoration Matching Contributions - Eligibility and Allocations**

A Participant who defers Base Salary pursuant to a Restoration Deferral Election under Section 3.3 will be credited with a Restoration Matching Contribution from the Company related to such Restoration Deferrals. This Restoration Matching Contribution will equal a percentage (determined based on the matching contribution formula applicable to the Participant under the VIP for the Plan Year) of the Participant's Restoration Deferrals for the Plan Year (or, if applicable, Mid-Year Participation Period).

Restoration Matching Contributions under this Plan apply only to Participant Deferrals of Base Salary made pursuant to a Restoration Deferral Election. Restoration Matching Contributions will not be made with respect to Participant Deferrals of Base Salary made pursuant to an Extra Deferral Election.

Restoration Matching Contributions will be credited to the Participant's Account on the date that the underlying Restoration Deferrals are credited to the Participant's Account.

4.2. **Restoration SSP+ Company Contributions - Eligibility and Allocations**

An Eligible Employee who receives a VIP+ Company Contribution under the VIP may be eligible to be credited with a Restoration SSP+ Contribution for a Plan Year (or, if applicable, the Mid-Year Participation Period).

An eligible Participant will be credited with a Restoration SSP+ Company Contribution by the Company during the Plan Year (or, if applicable, the Mid-Year Participation Period) only after either: (a) the Participant's Base Salary for such Plan Year reaches the limitation under Code section 401(a)(17), as indexed, or (b) the Participant's annual additions under the VIP for such Plan Year reach the dollar limitation of Code section 415(c), as indexed.

The Restoration SSP+ Company Contribution for a Plan Year will equal a percentage of the Participant's Base Salary paid during the applicable pay periods within such Plan Year (or Mid-Year Participation Period). This percentage will be equal to the VIP+ Company Contribution percentage for which the Participant is eligible for such pay period under the VIP.

The calculation of Restoration SSP+ Company Contributions will not take into account Cash Incentive or Performance Awards. See Section 4.3 for a description of Executive SSP+ Company Contributions on eligible Cash Incentive.

A Restoration SSP+ Company Contribution will be credited to the Participant's Account on the date the underlying Base Salary is payable, or as soon thereafter as administratively feasible.

4.3. **Executive SSP+ Company Contributions - Eligibility and Allocations**

An Employee is eligible to receive Executive SSP+ Company Contributions for a Plan Year for so long as he or she satisfies each of the conditions described in (A)-(D) below:

(A) The Employee satisfies the eligibility requirements under Section 3.1(A).

(B) The Employee is not eligible to accrue benefits under any defined benefit plan maintained by the Controlled Group.

(C) The Employee is eligible to receive a VIP+ Company Contribution under the VIP during the Plan Year.

(D) The Employee is entitled to payment of Cash Incentive during the Plan Year. Cash Incentive is not counted for this purpose if paid following the Employee's termination of employment from the Controlled Group.

A rehired Employee who previously participated in the Plan will become eligible to receive Executive SSP+ Company Contributions on the date the Employee satisfies the eligibility conditions in this Section 4.3 again after rehire.

The Executive SSP+ Company Contribution for a Plan Year will equal a percentage of the Participant's Cash Incentive payable during the Plan Year. This percentage will be equal to the VIP+ Company Contribution percentage for which the Participant is eligible at the time the Cash Incentive is payable.

An Executive SSP+ Company Contribution will be credited to the Participant's Account at the time the Cash Incentive is payable, or as soon thereafter as administratively feasible.

4.4. **DC SERP Contributions - Eligibility, Participation and Contributions**

(A) <u>Eligibility</u>

An Employee is eligible to receive DC SERP Contributions with respect to a Plan Year for so long as he or she satisfies the conditions in either (i) or (ii) below.

For purposes of determining eligibility for the DC SERP, the term "hired" has the meaning assigned in the VIP for purposes of determining eligibility for Company Contributions thereunder, regardless of the date on which the Employee joins the E-Series Payroll.

i. *Hired Between January 1, 2009 and December 31, 2019*

An Employee satisfies the conditions in this subsection (i) if:

(a) The Employee was hired on or after January 1, 2009, but before January 1, 2020,

(b) The Employee is on the E-Series Payroll in level E-1, E-2, or E-3, and was on the E-Series Payroll (in any level E-1 through E-5) as of December 31, 2019,

(c) The Employee is not an elected officer of the Company, and

(d) The Employee is ineligible to accrue benefits under any defined benefit plan maintained by the Controlled Group.

ii. *Hired Before January 1, 2009*

An Employee satisfies the conditions in this subsection (ii) if:

(a) The Employee was hired before January 1, 2009,

(b) The Employee was on the E-series Payroll (in any level E-1 through E-5) as of December 31, 2019, and

(c) The Employee is not an elected officer of the Company.

(B) <u>DC SERP Participation</u>

An Eligible Employee will be a Participant in the DC SERP for the period(s), if any, that the Employee satisfies the eligibility conditions in Section 4.4(A).

(C) <u>DC SERP Contributions</u>

Each Participant eligible for DC SERP Contributions shall be entitled to contributions under this Plan as described below.

i. *Payroll Contributions*

Contributions will be credited to the Participant's Account on the date the Base Salary and Cash Incentive otherwise would be payable, or as soon thereafter as administratively feasible.

(a) <u>Hired Between January 1, 2009 and December 31, 2019</u>

A Participant described in Section 4.4(A)(i) (Hired Between January 1, 2009 and December 31, 2019) will receive a DC SERP contribution equal to a Contribution Credit times the sum of the Participant's Base Salary and Cash Incentive, for each applicable pay period. The Contribution Credit for a pay period is determined by the Participant's level as of such pay period as follows:

(1) 2%, for a Participant at level E-2 through E-3.

(2) 4%, for a Participant at level E-1.

If a Participant changes levels during a pay period, the Participant's level as in effect on the last day of the pay period will apply. For purposes of calculating the DC SERP contribution, a Participant's Base Salary and Cash Incentive will be counted solely to the extent that (1) the Participant is on the E-Series Payroll during the applicable pay period or (2) such Cash Incentive is paid after a Participant's termination of employment from the Controlled Group but on or before such Participant receives his or her final regular paycheck.

(b) Hired Before January 1, 2009

A Participant described in Section 4.4(A)(ii) (Hired Before January 1, 2009) will receive a DC SERP contribution equal to a Contribution Credit times the sum of the Participant's Base Salary and Cash Incentive, for each applicable pay period. For purposes of calculating the DC SERP contribution, a Participant's Base Salary and Cash Incentive will be counted solely to the extent that (1) the Participant is on the E-Series Payroll during the applicable pay period or (2) such Cash Incentive is paid after a Participant's termination of employment from the Controlled Group but on or before such Participant receives his or her final regular paycheck.

The Contribution Credit will equal the sum of (i) and, if applicable, (ii):

(1) 5%

(2) For a Participant who has attained age 55 (or will attain age 55 by the end of a Plan Year), 0.5% times the Participant's whole years of Benefit Service (as defined under the PVP and/or BSS Plan, as applicable, and determined as of January 1, 2016), subject to the limitation herein. The supplemental percentage credited under this subsection (ii) will be contributed for a period not to exceed seven years. This seven-year period will commence on January 1, 2016 (or on January 1 of the year in which the Participant attains age 55, or on the date of promotion to the E-Series Payroll, whichever is latest) and will be measured in the aggregate over a Participant's lifetime (i.e., regardless of whether the Participant has multiple periods of employment with the Controlled Group).

ii. *One-Time Contribution*

An Employee who satisfies the requirements described in Section 4.4(A)(i) (Hired Between January 1, 2009 and December 31, 2019), and who is first promoted to a level of E-1 through E-3 (from a position at a level of E-4 or E-5) during the Plan Year, will receive a one-time additional contribution equal to the product of (a), (b) and (c) below.

(a) 2%

(b) The sum of:

(1) the Participant's Base Salary Rate in effect immediately following the promotion, and

(2) his or her Cash Incentive target percentage multiplied by the Base Salary Rate, both as in effect immediately following the promotion.

(c) The Participant's whole years of Service as of the date of first promotion to a level of E-1 through E-3 (from a position at a level of E-4 or E-5); provided that, for such purpose, a Participant's years of Service will be limited to Service earned since his or her most recent hire date.

This amount will be credited to the Participant's Account as of the date of first promotion to a level of E-1 through E-3, or as soon thereafter as administratively feasible.

A Participant who has received a one-time contribution under this Section upon promotion to a level of E-1 through E-3 will be ineligible for any further contributions under this subsection (C)(ii).

Notwithstanding anything herein to the contrary, no DC SERP Contributions will be made for: (i) any elected officer on or after January 1, 2020, or (ii) any Employee who is hired or promoted onto the E-series Payroll on or after January 1, 2020.

4.5. **Company Contributions - Elections**

(A) Restoration Matching Contributions

An Eligible Employee must make a timely Restoration Deferral Election, as described in Section 3.3, to become eligible to participate in the Restoration Matching Contribution component of the Plan.

Any election made as to the form and timing of distribution with respect to Restoration Deferrals will apply to the Participant's entire Restoration Account related to the Plan Year(s) to which the Restoration Deferral Election applies, including Restoration Matching Contributions.

(B) Restoration SSP+ Company Contributions

An Eligible Employee who receives a VIP+ Company Contribution under the VIP will automatically become a Participant in the Restoration SSP+ Company Contribution component of the Plan at such time as the eligibility requirements under Section 4.2 are satisfied. Accordingly, no Deferral Election is required with respect to this benefit.

Any election made as to the form and timing of distribution with respect to Restoration Deferrals will apply to the Participant's entire Restoration Account related to the Plan Year(s) to which the Deferral Election applies, including Restoration SSP+ Company Contributions.

(C) Executive SSP+ Company Contributions and DC SERP Contributions

An Eligible Employee will automatically become a Participant in the Executive SSP+ Contribution or DC SERP components of the Plan at such time as the eligibility requirements under Section 4.3 or Section 4.4, respectively, are satisfied. No initial distribution elections are permitted or required with respect to the timing or form of payment of the Executive SSP+ Contribution or the DC SERP component of the Plan. Accordingly, no Deferral Election is permitted or required with respect to this benefit.

Notwithstanding the foregoing, an Eligible Employee may make a one-time payment election change with respect to the timing and form of payment of certain Executive SSP+ Company Contributions, in accordance with Section 6.1.

ARTICLE V
Vesting and Forfeiture Rules

5.1 Vesting

This Article V describes the vesting and forfeiture rules applicable to certain benefits under the Plan. In addition to the rules set forth in this Article V, see Section 7.4 regarding missing participants and improper credits, Section 10.2 regarding anti-assignment, and Section 10.3 regarding the unfunded nature of this Plan.

5.2 Extra Deferral Vesting

A Participant's interest in his or her Extra Deferral Account will be 100% vested at all times.

5.3 Restoration Vesting

A Participant's interest in his or her Restoration Account will be 100% vested at all times.

5.4 Executive SSP+ Company Contribution Vesting

Subject to Section 5.5, a Participant's interest in his or her Executive SSP+ Company Contribution Account will be 100% vested at all times.

5.5 Executive SSP+ Company Contribution Forfeiture Rules

The Administrator may determine, in its sole discretion, that a Participant will forfeit any part or all of the portion of his or her Executive SSP+ Company Contribution Account that is attributable to Executive SSP+ Company Contributions made on and after January 1, 2017, if any of the following circumstances occur while employed by the Controlled Group or within five (5) years after termination of such employment:

(A) The Participant is convicted of a felony involving theft, fraud, embezzlement, or other similar unlawful acts against the Controlled Group or against the Controlled Group's interests. For purposes of this Plan, "other similar unlawful acts against the Controlled Group or against the Controlled Group's interests" shall include any other unlawful act (i) committed against the Controlled Group, or the interests of the Controlled Group, including, but not limited to, a governmental agency or instrumentality which conducts business with the Controlled Group, or a customer of the Controlled Group, or (ii) affecting the Controlled Group or the interests of the Controlled Group, in such a manner that is determined to be detrimental to, prejudicial to or in conflict with the Controlled Group or the interests of the Controlled Group, as determined by the Administrator in its sole discretion.

(B) The Participant, directly or indirectly, engages in any activity, whether individually or as an employee, consultant or otherwise, which the Administrator determines, in its sole discretion, to be an activity in which the Participant is "engaging in competition" with any significant aspect of Controlled Group business. For purposes of this Plan, "engaging in competition" shall include but is not limited to representing, providing services to, or being an employee of or associated in a business capacity with, any person or entity that is engaged, directly or indirectly, in competition with any Controlled Group business or that takes a position adverse to any Controlled Group business, regardless of the position or duties the Participant takes, in such a manner that is determined to be detrimental to, prejudicial to or in conflict with the interests of the Controlled Group, all as determined by the Administrator in its sole discretion.

(C) The Participant, without the advance approval of The Boeing Company's Senior Vice President of Human Resources (or successor position thereto), induces or attempts to induce, directly or indirectly, any of the Controlled Group's employees, representatives or consultants to terminate, discontinue or cease working with or for the Controlled Group, or to breach any contract with the Controlled Group, in order to work with or for, or enter into a contract with, the Participant or any third party.

(D) The Participant disparages or otherwise makes any statements about the Controlled Group, its products, or its employees that could be in any way viewed as negative or critical. Nothing in this paragraph will apply to legally protected communications to government agencies or statements made in the course of sworn testimony in administrative, judicial, or arbitral proceedings.

(E) The Participant uses or discloses proprietary or confidential information, including but not limited to trade secrets, of the Controlled Group. Nothing in this paragraph will apply to legally protected communications to government agencies or statements made in the course of sworn testimony in administrative, judicial, or arbitral proceedings.

To the extent the Participant has already received or commenced payment of such portion of his or her Executive SSP+ Company Contribution Account, the Administrator will be entitled to pursue any and all legal and equitable relief against the Participant to enforce the forfeiture of and recover the amount distributed from such Executive SSP+ Company Contribution Account. The forfeiture provisions will continue to apply unless and to the extent modified by a court of competent jurisdiction. However, if any portion of these forfeiture provisions is held by such a court to be unenforceable, these provisions shall be deemed amended to limit their scope to the broadest scope that such authority determines is enforceable, and as so amended shall continue in effect.

In addition, the Administrator will, in all appropriate circumstances, require reimbursement of any Executive SSP+ Company Contribution Account attributable to Executive SSP+ Company Contributions made on and after January 1, 2017, which are attributable to an incentive award that the Controlled Group seeks to recover under the clawback provision of any plan providing Cash Incentive.

5.6 DC SERP Vesting

No payments shall be made from a Participant's DC SERP Account except to the extent such Participant is vested in his or her DC SERP Account.

(A) General DC SERP Vesting Rule for Participants Hired Between January 1, 2009 and December 31, 2019

A Participant described in Section 4.4(A)(i) (Hired Between January 1, 2009 and December 31, 2019) will vest 100% in his or her DC SERP Account component(s) covered under this subsection (A) on the date the Participant satisfies the conditions in any of (i), (ii) or (iii) below.

i. The Participant has been on the E-Series Payroll at a level of E-1 through E-3 for a period of 36 consecutive months. (For Participants with prior periods of employment, a period of consecutive months before January 1, 2009 on the E-Series Payroll at a level of E-1 through E-3 will be counted for purposes of determining whether this 36 consecutive month requirement has been satisfied.)

ii. The Participant dies while an Employee.

iii. The Participant is laid off from a position at level E-1 through E-3 and is eligible for benefits under The Boeing Company Executive Layoff Benefits Plan.

See Section 5.6(C) below for additional vesting rules for these Participants based on age and Service.

(B) General DC SERP Vesting Rule for Participants Hired Before January 1, 2009

A Participant described in Section 4.4(A)(ii) (Hired Before January 1, 2009) will vest 100% in his or her DC SERP Account component covered under this subsection (B) on the date the Participant satisfies the conditions in any of (i), (ii) or (iii) below.

i. The Participant has been on the E-Series Payroll for a period of 36 consecutive months. For a Participant on the E-Series Payroll as of January 1, 2016, a period of consecutive months before January 1, 2016 on the E-Series Payroll will be counted for purposes of determining whether this 36 consecutive month requirement has been satisfied.

ii. The Participant is fully vested under the PVP and/or BSS Plan, as applicable, and dies while an Employee before his or her DC SERP Account commences payment under this Plan.

iii. The Participant is laid off from an E-Series position and is eligible for benefits under The Boeing Company Executive Layoff Benefits Plan.

(C) Special Vesting Rules for Participants Hired Between January 1, 2009 and December 31, 2019 with 55/10 or 62/1

Special vesting rules apply for a Participant described in Section 4.4(A)(i) (Hired Between January 1, 2009 and December 31, 2019) who has attained either (i) or (ii) while employed by the Controlled Group.

i. Age 55 with 10 years of Service, or

ii. Age 62 with one year of Service.

This Participant will be 100% vested in the portion of his or her DC SERP Account described in Section 4.4(C)(i) (Payroll Contributions) after he or she has been on the E-Series Payroll for a period of 36 consecutive months.

This Participant will vest ratably in the portion of his or her DC SERP Account described in Section 4.4(C)(ii) (One-Time Contribution), if any, at the rate of 1/36 for each consecutive month that the Participant is on the E-Series Payroll at a level of E-1 through E-3, starting with the date on which the Participant was first promoted to the E-Series Payroll at a level of E-1 through E-3. This pro rata vesting rule is not intended to preclude the acceleration of vesting under subsections (A)(ii) (death) or (iii) (layoff) above, if applicable.

(D) Authorized Period of Absence

For purposes of this Section, an Authorized Period of Absence from the E-Series Payroll will count as a period on the E-Series Payroll, and an Authorized Period of Absence from a position at level E-1 through E-3 will count as a period at these levels.

If an Employee ceases to be at the applicable level for any reason other than an Authorized Period of Absence, and the Employee later returns to a position at the applicable level, these non-consecutive periods of service will not be aggregated for purposes of determining whether the 36-consecutive month requirement has been met.

(E) Transfers to and from ULA and USA

For purposes of computing vesting for a Participant who transfers employment directly from the Controlled Group to ULA or USA, uninterrupted service at ULA or USA as an executive in a position at a comparable level will be credited toward the 36 consecutive months requirements described herein, provided that the Participant transfers directly from the E-Series Payroll (or a position at level E-1 through E-3 if applicable) at the Controlled Group to comparable executive status at ULA or USA, as applicable. ULA and USA service will not be credited toward vesting under this Plan for any period following the Participant’s removal from this executive status. For purposes of computing vesting for a participant who transfers employment directly from ULA or USA to the Controlled Group, uninterrupted service at ULA or USA as an executive at a position comparable to the E-Series Payroll (or a position at level E-1 through E-3, if applicable) will be credited toward the 36 consecutive months requirements described herein, provided that the Participant transfers directly from this executive status at ULA or USA to a position at a comparable level at the Controlled Group. ULA and USA service will not be credited toward vesting under this Plan for any period prior to the Participant's attainment of this executive status at ULA or USA, as applicable.

(F) Impact of Separation from Service/Transfer

i. Payroll Contributions . If a Participant Separates from Service (other than due to an Authorized Period of Absence) or transfers off of the E-Series Payroll (or a position at level E-1 through E-3, if applicable) *before* becoming 100% vested in the payroll contribution portion of his or her DC SERP Account described in Section 4.4(C)(i)(A) and/or (i)(B), as applicable, the Participant will forfeit all rights to the nonvested portion of his or her DC SERP Account attributable to the period prior to his or her Separation from Service or transfer. To the extent any benefit under this Plan becomes vested during an Authorized Period of Absence that continues after a deemed Separation from Service, it will remain subject to the payment timing rules under Section 6.1.

ii. One-Time Contributions . If a Participant stops accruing service toward satisfaction of applicable vesting requirements (such as due to a Separation from Service) after becoming partially vested in the one-time contribution portion of the DC SERP Account, under subsection (C) above, and the Participant subsequently resumes accruing service toward satisfaction of applicable vesting requirements, the DC SERP Account accrued after such resumption will not be vested until the Participant satisfies the requirements of subsection (A) or (C) above following such resumption.

iii. Multiple DC SERP Account Components . Separate vesting requirements apply to each component of a Participant's DC SERP Account described in Sections 4.4(C)(i)(a), (i)(b), and (ii). This means that a Participant who has accrued more than one DC SERP Account component (such as, due to a Separation from Service and subsequent rehire) must satisfy the vesting requirements applicable to each such component. If a Participant Separates from Service *after* becoming 100% vested in a particular DC SERP Account component, the Participant will be fully vested in any additional accruals under the same DC SERP Account component following rehire or return (even if the Participant fails to be at the applicable pay level for 36 consecutive months following rehire or return). The Participant will not, however, be fully vested in any amounts accrued under a *different* DC SERP Account component unless and until the corresponding applicable vesting requirements under this Section 5.5 otherwise have been satisfied.

See Section 7.4 regarding missing participants and improper credits, Section 10.2 regarding anti-assignment, and Section 10.3 regarding the unfunded nature of this Plan.

5.7 DC SERP Forfeiture Rules

The Administrator may determine, in its sole discretion, that a Participant will forfeit any part or all of his or her DC SERP Account if any of the following circumstances occur while employed by the Controlled Group or within five (5) years after termination of such employment:

(A) The Participant is convicted of a felony involving theft, fraud, embezzlement, or other similar unlawful acts against the Controlled Group or against the Controlled Group's interests. For purposes of this Plan, "other similar unlawful acts against the Controlled Group or against the Controlled Group's interests" shall include any other unlawful act (i) committed against the Controlled Group, or the interests of the Controlled Group, including, but not limited to, a governmental agency or instrumentality which conducts business with the Controlled Group, or a customer of the Controlled Group, or (ii) affecting the Controlled Group or the interests of the Controlled Group, in such a manner that is determined to be detrimental to, prejudicial to or in conflict with the Controlled Group or the interests of the Controlled Group, as determined by the Administrator in its sole discretion.

(B) The Participant, directly or indirectly, engages in any activity, whether individually or as an employee, consultant or otherwise, which the Administrator determines, in its sole discretion, to be an activity in which the Participant is "engaging in competition" with any significant aspect of Controlled Group business. For purposes of this Plan, "engaging in competition" shall include but is not limited to representing, providing services to, or being an employee of or associated in a business capacity with, any person or entity that is engaged, directly or indirectly, in competition with any Controlled Group business or that takes a position adverse to any Controlled Group business, regardless of the position or duties the Participant takes, in such a manner that is determined to be detrimental to, prejudicial to or in conflict with the interests of the Controlled Group, all as determined by the Administrator in its sole discretion.

(C) The Participant, without the advance approval of The Boeing Company's Senior Vice President of Human Resources (or equivalent but for title), induces or attempts to induce, directly or indirectly, any of the Controlled Group's employees, representatives or consultants to terminate, discontinue or cease working with or for the Controlled Group, or to breach any contract with the Controlled Group, in order to work with or for, or enter into a contract with, the Participant or any third party.

(D) The Participant disparages or otherwise makes any statements about the Controlled Group, its products, or its employees that could be in any way viewed as negative or critical. Nothing in this paragraph will apply to legally protected communications to government agencies or statements made in the course of sworn testimony in administrative, judicial, or arbitral proceedings.

(E) With respect to contributions made to the Plan on and after January 1, 2017, the Participant uses or discloses proprietary or confidential information, including but not limited to trade secrets, of the Controlled Group. Nothing in this paragraph will apply to legally protected communications to government agencies or statements made in the course of sworn testimony in administrative, judicial, or arbitral proceedings.

To the extent the Participant has already received or commenced payment of his or her DC SERP Account, the Administrator will be entitled to pursue any and all legal and equitable relief against the Participant to enforce the forfeiture of and recover such benefit. The forfeiture provisions will continue to apply unless and to the extent modified by a court of competent jurisdiction. However, if any portion of these forfeiture provisions is held by such a court to be unenforceable, these provisions shall be deemed amended to limit their scope to the broadest scope that such authority determines is enforceable, and as so amended shall continue in effect.

In addition, the Administrator will, in all appropriate circumstances, require forfeiture or reimbursement of any portion of a DC SERP Account attributable to an incentive award that the Controlled Group seeks to recover under the clawback provision of any plan providing Cash

ARTICLE VI
Distributions

6.1 Form and Timing of Distribution

(A) Extra Deferral Account

A Participant may elect the form and timing of distribution with regard to his or her Extra Deferral Account as described below, subject to the cash-out rule in subsection (E) below. This distribution election must be made at the same time the Participant makes his or her first Extra Deferral Election.

If a Participant fails to make a timely election with regard to the *timing* of payment of his or her Extra Deferral Account, then the Participant will be deemed to have elected to receive payment in January of the first Plan Year following the Participant's Separation from Service (subject to subsection (H)). If a Participant fails to make a timely election with regard to the *form* of payment of his or her Extra Deferral Account, then the Participant will be deemed to have elected to receive payment in a lump sum. Notwithstanding anything herein to the contrary, to the extent the Participant had in effect a distribution election under the Deferred Compensation Plan for Employees of The Boeing Company immediately prior to January 1, 2019 and fails to make a timely election with regard to the timing or form of payment of his or her Extra Deferral Account, such distribution election shall apply automatically to any future deferrals of the same type credited under this Plan and such Participant will only be permitted to change such deemed election in accordance with subsection (F) below.

A Participant may change a distribution election (or deemed distribution election) with respect to his or her entire Extra Deferral Account after the initial Extra Deferral Election is made (or deemed made), to the extent permitted and in accordance with the conditions stated under subsection (F) below.

(B) Restoration Account

A Participant may elect the form and timing of distribution with regard to his or her Restoration Account (including future Restoration Deferrals, Restoration Matching Contributions, Restoration SSP+ Company Contributions, and Earnings Credits thereon) as described below, subject to the cash-out rule in subsection (E) below. This distribution election must be made at the same time the Participant makes his or her first Restoration Deferral Election or, if earlier, during the enrollment period immediately preceding the first year with respect to which the Participant receives SSP+ Company Contributions. Any election made as to the form and timing of distribution will apply to the Participant's entire Restoration Account.

If a Participant fails to make a timely election with regard to the *timing* of payment of his or her Restoration Account, then the Participant will be deemed to have elected to receive payment in January of the first Plan Year following the Participant's Separation from Service (subject to subsection (H)). If a Participant fails to make a timely election with regard to the *form* of payment of his or her Restoration Account, then the Participant will be deemed to have elected to receive payment in a lump sum.

A Participant may change a distribution election (or deemed distribution election) with respect to his or her entire Restoration Account after the initial Restoration Deferral Election is made (or deemed made), to the extent permitted and in accordance with the conditions stated under subsection (F) below.

(C) Executive SSP+ Company Contribution and DC SERP Accounts

No initial distribution elections are permitted or required with regard to a Participant's Executive SSP+ Company Contribution Account or DC SERP Account. Rather, a Participant will be deemed to have elected to receive his or her Executive SSP+ Company Contribution and DC SERP Account in a lump sum, payable in January of the first Plan Year following Separation from Service (subject to subsection (H)).

A Participant may change his or her deemed distribution election with respect to his or her combined DC SERP Account and Executive SSP+ Company Contribution Account (if any), to the extent permitted and in accordance with the conditions stated under subsection (F) below.

(D) Timing and Form of Distribution

i. Lump Sum Distribution

The lump sum distribution option is a single lump sum payment that will be made in the later of: (i) January of the first Plan Year following Separation from Service, or (ii) January of the first Plan Year following the Participant's attainment of a specified age (subject to subsection (E) below), as elected by the Participant under this Section 6.1 (in each case subject to subsection (H) below). The amount of such distribution will be based on the value of the Participant's Account determined as of the date of payment.

ii. Installment Payment

The installment payment option is a series of annual installment payments for a period between 2 and 15 years, as elected by the Participant under this Section 6.1. The amount payable to the Participant each year generally shall be computed by dividing the balance in the Account (or the applicable portion of the Account) as of the date payment is made by the number of years remaining in the distribution period on the first day of January of such year. See Section 6.1(E) below for application of the cash-out rule to installment payments.

Annual installment payments, if elected, will begin in the later of: (i) January of the first Plan Year following Separation from Service, or (ii) January of the first Plan Year following the Participant's attainment of a specified age (subject to (E) below), as elected by the Participant under this Section 6.1 (in each case subject to subsection (H) below). Payments will continue to be made each January thereafter until the full amount of the benefit has been paid.

(E) Cash-outs

Notwithstanding the foregoing, subject to the six-month delay in payment for Specified Employees under subsection (H), if a Participant has elected to receive installments and his or her remaining Account balance is $10,000 or less upon any scheduled payment date, the entire remaining balance will be paid in the form of a single lump sum at that time.

(F) Changes to Distribution Election or Deemed Election

A Participant may change a distribution election (or deemed election) after the initial distribution election is made (or deemed made) only once with regard to each of the following subaccounts: the Participant's Restoration Benefit Account, Executive Benefit Account and Extra Deferral Account.

Such election must change the time of payment (consistent with the requirement of clause (iii) below) and may change the form of payment (from lump sum to installments, or vice versa).

To the extent any such changes would defer commencement of any portion of the Participant's Restoration Benefit Account, Executive Benefit Account or Extra Deferral Account beyond both age 70½ and Separation from Service, the changes will not be effective.

i. A new distribution election must be submitted to the Administrator at least 12 months before the existing scheduled distribution date under the applicable subaccount, and during the annual election period established by the Administrator.

ii. The revised distribution election must not take effect for at least 12 months after it is made.

iii. The new distribution election must provide for an additional deferral period of at least 5 years beyond the original distribution date.

In no event can installment payments be changed or revoked once they have begun. In all cases, payments will be made in January (subject to subsection (H)).

(G) Distributions At Age 70½

Payment of benefits under this Plan will begin no later than the first January following the calendar year in which the Participant both attains (or would have attained) age 70½ and is Separated from Service. Payment of benefits for Participants actively employed beyond age 70½ will begin no later than the first January following the calendar year in which the Participant Separates from Service. Subject to subsection (D), any election made by a Participant to the contrary will not be effective.

(H) Specified Employees

Notwithstanding anything to the contrary under this Article VI, a Specified Employee will not receive any distribution under this Plan during the six-month period immediately following his or her Separation from Service.

Subject to subsection (F) above, the Account of a Specified Employee will be distributed in the form elected (or deemed elected) under subsection (A), (B), or (C) above, as applicable. This distribution will be made or commence as of the latest of:

i. the time elected (or deemed elected) under subsection (A), (B), or (C), as applicable,

ii. the first day of the month following completion of the six-month waiting period (for Specified Employees who Separate from Service between July 1 and December 31), and

iii. January of the first Plan Year following Separation from Service (for Specified Employees who Separate from Service between January 1 and June 30).

If a Participant has elected installments, subsequent installment payments will be made in January of each successive year until the Account is exhausted.

In the event of a Specified Employee's death during the six-month waiting period, the waiting period will cease to apply. The Specified Employee's benefits will be distributed in accordance with Section 6.2 (Death Benefits) below.

(I) Distribution Due to Unforeseeable Emergency

A Participant or Beneficiary may elect to receive a distribution of all or a portion of his or her Extra Deferral Account, Restoration Account and his or her Executive SSP+ Company Contribution Account immediately, regardless of whether benefit payments have commenced, to the extent that the Participant or Beneficiary incurs an Unforeseeable Emergency. A Participant or Beneficiary may not receive a distribution of his or her DC SERP Account solely in the event of an Unforeseeable Emergency, even if fully vested.

The amount of the distribution will be limited to the amount reasonably necessary to satisfy the emergency need, including any taxes or penalties reasonably anticipated to result from the distribution, as determined by the Administrator.

6.2 Death Benefits

If a Participant dies before his or her entire Account has been distributed, the remaining balance will be distributed to his or her Beneficiary in accordance with the Participant's election or deemed election as to form and timing filed with the Administrator with regard to such Account(s). Distributions to the Beneficiary will be made at the same time (or as soon as practicable following the Company's receipt of a notice of the Participant's death) and in the same form as the payment that otherwise would have been made to the Participant.

If a Beneficiary dies after the Participant, but before receiving the payment of all amounts due hereunder, then the unpaid amounts will be paid to the individual(s) designated (in accordance with the rules established by the Administrator) by the Beneficiary as his or her beneficiary(ies), or if no such designation has been made (or if such individual(s) do(es) not survive to receive payment), then such unpaid amounts will be paid to the Beneficiary's estate, in a single lump sum, as soon as practicable after the Beneficiary's death.

6.3 Rehires and Authorized Periods of Absence/Reduced Level of Services

This Section 6.3 addresses the form and timing of payment for a Participant who is rehired by the Company following a Separation from Service, or who remains employed after a Separation from Service has occurred (for example, due to an extended Authorized Period of Absence or due to reduced level of services).

In the event that a Participant forfeits a nonvested DC SERP Account upon a Separation from Service, this benefit will not be restored upon rehire. This rule applies regardless of whether the Participant satisfies the vesting criteria under Section 5.5 following rehire.

(A) After Commencing Benefits

This subsection (A) applies to a Participant who has received or begun receiving benefits under the Plan because he or she has experienced a Separation from Service and has attained the specified age (if applicable).

i. Rehires . Installment payments that commenced prior to the Participant's rehire with respect to Participant Deferrals made and Company Contributions received before the Participant's Separation from Service ("Old Account") will not be suspended by reason of the Participant's rehire. This Old Account will continue to be paid until exhausted, without regard to the period of rehire.

Participant Deferrals made and Company Contributions received attributable to periods after the date of rehire ("New Account") will remain subject to the Participant's earlier distribution election or deemed election as to the timing and form of payment under Section 6.1(D) (subject to the change rules in Section 6.1(F)), without regard to any Separation from Service that occurred prior to rehire. As a result, the New Account will be distributed in January following the Participant's Separation from Service after rehire (subject to any 6-month delay for Specified Employees), in the form selected under the original distribution election or deemed election. This is because the Participant already has attained the specified age under Section 6.1(D) but has not yet experienced a Separation from Service attributable to the New Account.

ii. Authorized Period of Absence/Reduced Level of Services . To the extent a Participant made additional Participant Deferrals or received additional Company Contributions while on an Authorized Period of Absence or during a period of a reduced level of services that constituted a Separation from Service under Code section 409A, such Participant Deferrals made and Company Contributions received (to the extent vested) will be distributed in January of the first Plan Year following the year in which they are made, in accordance with the Participant's earlier distribution election or deemed election. This is because the Participant has already satisfied the conditions for payment under Section 6.1(D); namely, he or she has attained the specified age and has experienced a Separation from Service attributable to such Participant Deferrals made and contributions received.

(B) Before Commencing Benefits

This subsection (B) applies to a Participant who has not begun receiving benefits under the Plan.

i. Rehires . The rehired Participant's Old Account, to the extent vested, will be distributed in accordance with the Participant's earlier distribution election or deemed election as to the timing and form of payment under Section 6.1(D) (subject to the change rules in Section 6.1(F)). This means that, for example, if the Participant's original distribution election selected benefits in the form of a lump sum (or installments) payable in January following attainment of a specified age under Section 6.1(D), then the Participant's Old Account (to the extent vested) will be payable as a lump sum (or installments, if so elected) in January following the year in which he or she attains the specified age, even if the Participant has not had a subsequent Separation from Service after rehire. This result will not change in the event that the Participant attains the specified age after the initial Separation from Service, but is rehired before benefits actually begin.

The Participant's New Account will remain subject to the Participant's earlier distribution election or deemed election as to the timing and form of payment under Section 6.1(D) (subject to the change rules in Section 6.1(F)), without regard to any Separation from Service that occurred prior to rehire, as described in Section 6.3(A) above. As a result, the New Account will be distributed either (i) in January following the Participant's Separation from Service *after rehire* , or (ii) in January following both the Participant's Separation from Service *after rehire* and after attainment of the specified age, in accordance with the original distribution election or deemed election. This is because the Participant has not yet experienced a Separation from Service attributable to the New Account.

ii. Authorized Period of Absence/Reduced Level of Services . Any Participant Deferrals made or Company Contributions received during an Authorized Period of Absence or a period of a reduced level of services (to the extent vested) will be distributed in accordance with the Participant's earlier distribution election or deemed election as to the timing and form of payment under Section 6.1(D) (subject to the change rules in Section 6.1(F)). This means that, for example, if the Participant's original distribution election selected benefits in the form of a lump sum (or installments) payable in January following attainment of a specified age under Section 6.1(D), then any Participant Deferrals made and contributions received during an Authorized Period of Absence or a period of a reduced level of services will be payable as a lump sum (or installments, if so elected) in January following the year in which he or she attains the specified age. This result will not change in the event that the Participant attains the specified age while on an Authorized Period of Absence or during a period of a reduced level of services, but resumes (or increases his or her level of) services before benefits actually begin.

ARTICLE VII
Accounts

7.1 **Participant Accounts**

The Administrator will establish and maintain an Account for each Participant, for each period of employment. Solely for this purpose, a period of employment will be treated as commencing upon a Participant's eligibility for the Plan (following hire or rehire as applicable) and ending with his or her Separation from Service.

Each Account will be credited with Participant Deferrals and Company Contributions for the relevant period of employment, as well as Earnings Credits described in Section 7.2 below. Each Account will be reduced as payments are made.

In connection with the January 1, 2019 amendment and restatement of the Plan, there was a one-time transfer of certain Restoration Benefit sub-accounts of certain participants from the Plan to The Boeing Company Supplemental Savings Plan (the "SSP") such that the opening account balances of such participants in the SSP on January 1, 2019 was equal to the closing balance of such participants' Restoration Benefit accounts in the Plan on December 31, 2018. The affected participants were: (A) each Employee (as defined in the SSP) who was an Eligible Employee (as defined in the SSP) on January 1, 2019, and was a participant in the Restoration Benefit of the Plan prior to 2019 and (B) each other current or former Employee (as defined in the SSP) who was not as of January 1, 2019 and had never been on the E-Series Payroll (as such term is defined in the Plan).

7.2 **Earnings Credits**

A Participant's Account(s) will be credited, at the Participant's (or, if applicable, Beneficiary's) election, with earnings under one or more of the following, as the individual elects and subject to any rules or limitations as may be imposed by the Administrator: (i) the Interest Fund method, (ii) the Boeing Stock Fund method, or (iii) the Other Investment Funds method, each as described below. In the absence of an election the Interest Fund method will be used.

(A) Interest Fund Method

Under this method, a Participant's Interest Fund method sub-account shall be adjusted daily in accordance with changes in the unit value of the sub-account to reflect interest, based on the Participant's sub-account balance.

Interest will be calculated for each Plan Year as the mean between the high and low (during the first eleven months of the preceding Plan Year) of yields on AA-rated industrial bonds as reported by Moody's Investors Service, Inc., rounded to the nearest ¼th of one percent. Participants will be notified annually of the established interest rate.

(B) Boeing Stock Fund Method

Under this method, a Participant's Boeing Stock Fund sub-account shall be credited with the number of shares of the common stock of The Boeing Company that could be purchased with the amount credited to such sub-account, based on the Fair Market Value of the common stock of The Boeing Company on the day the sub-account is so credited (or on the next business day on which the New York Stock Exchange (the "Exchange") is open, if the Exchange is closed on the day the sub-account is credited) excluding commissions, taxes, and other charges. Such number shall be recorded as stock units in the Participant's sub-account, for bookkeeping purposes only. For purposes of the Plan, "Fair Market Value" means the mean of the high and low per share trading prices for the common stock of The Boeing Company as reported for the "New York Stock Exchange - Composite Transactions" for a single trading day. The number of stock units in a sub-account shall be appropriately adjusted to reflect stock splits, stock dividends, and other like adjustments in the common stock of The Boeing Company.

Each Participant's Boeing Stock Fund sub-account periodically shall be credited with the number of shares of the common stock of The Boeing Company that could be purchased, as set forth in the preceding paragraph, with an amount equal to the cash dividends that would be payable on the number of shares of the common stock of The Boeing Company that equals the number of stock units in a Participant's sub-account. The timing and methodology will mirror the VIP dividend process. Participants will be notified annually of the number of stock units, and the dividend equivalents, credited to their sub-account.

(C) Other Investment Funds Method

Under this method, a Participant may choose to diversify his or her Other Investment Funds sub-account by electing that it be credited (or charged) with the expenses, income, gains and losses on investment funds similar to those offered under the VIP (excluding the Boeing Stock Fund and Stable Value Fund offered thereunder) as designated by the Administrator from time to time, pursuant to an election by the Participant to have the Participant's sub-account credited as though the Participant had elected to invest in such funds in such increments as the Participant will direct in accordance with rules established by the Administrator or its delegates; provided that the Administrator may disregard such elections in its discretion.

Earnings credits to a Participant's Account(s) may be subject to valuation adjustments in accordance with the procedures established by the Administrator; provided, in no event will the portion of a Participant's Account(s) that has been distributed as of the time a valuation adjustment is made be subject to such valuation adjustment.

7.3 Investment Election Changes and Restrictions

A Participant may change how future additions to his or her Account(s) are deemed invested anytime during the Plan Year subject to the Administrator's rules and restrictions. The Participant may also transfer any portion of his or her sub-accounts from one investment fund to another on a daily basis, provided that a Participant may not transfer funds from one investment fund to another and back on the same day.

In addition, transfers cannot be made into the Boeing Stock Fund for 30 calendar days after transferring funds out of the Boeing Stock Fund. This restriction applies regardless of the number of units or the dollar value of the transfer. However, the Participant may continue to direct future additions into the Boeing Stock Fund and make transfers out of this investment fund at any time, subject to insider trading rules.

7.4 Missing Participants and Improper Credits

A Participant's Account may be forfeited or reduced upon the occurrence of one of the following events, even if 100% vested:

(A) The Administrator is unable to locate a Participant or Beneficiary to distribute amounts from his or her Account (a "missing participant").

(B) The Administrator recaptures amounts improperly credited to a Participant's Account.

See also Section 10.2 regarding anti-assignment and Section 10.3 regarding the unfunded nature of this Plan.

ARTICLE VIII
Administration

8.1 **Plan Administration**

The Plan shall be administered by the Administrator. The Administrator shall make such rules, interpretations, determinations of fact and computations as it may deem appropriate, including (without limitation) requiring the use of an electronic or telephonic system for purposes of Participant elections and designations. Any decision of the Administrator with respect to the Plan, including (without limitation) any determination of eligibility to participate in the Plan and any calculation of Plan benefits, shall be conclusive and binding on all persons. The Administrator shall submit to the Compensation Committee periodic reports covering the operation of the Plan.

8.2 **Claims Procedure**

The procedures for making claims for benefits under the Plan and for having the denial of a benefits claim reviewed shall be the same as those procedures set forth in the VIP, provided that the Compensation Committee of the Board of Directors shall be substituted for the Administrator thereunder for purposes of the review of claims and appeals with respect to benefits under the Plan for elected officers of the Company (other than determinations related to potential forfeiture or reimbursement of benefits under Sections 5.5 or 5.7 of the Plan, which such determinations shall be made by the Administrator).

See Section 10.8 regarding limitations on subsequent legal action.

ARTICLE IX
Amendment and Termination

The Board of Directors, the Compensation Committee, the Administrator, and their respective delegate or delegates shall each have the authority to amend the Plan at any time, including, but not limited to, the authority to adopt amendments to combine or transfer all or part of the Plan with or to other plans maintained by the Controlled Group (including a termination of the Plan for that purpose) or to change the timing of eligibility for participation in the Plan; provided, however, that the Compensation Committee shall have the exclusive authority to adopt any amendments or make any other changes to the Plan that change the rate or amount of Company-provided benefits for employees on the E-Series Payroll. The Board of Directors shall have the authority to terminate the Plan at any time.

In the event of Plan amendment or termination, a Participant's benefits under the Plan shall not be less than the Plan benefits to which the Participant would be entitled if the Participant had terminated employment immediately prior to such amendment or termination of the Plan, increased or decreased by any Earnings Credits attributable to periods on or after the effective date of such amendment or termination.

In general, upon the termination of the Plan with respect to any Participant, the affected Participants will not be entitled to receive a distribution until the time specified in Article VI. Notwithstanding the foregoing, The Boeing Company may, in its discretion, terminate the entire Plan and pay each Participant a single lump-sum distribution of his or her entire accrued benefit to the extent permitted under conditions set forth in Code section 409A and any IRS or Treasury guidance thereunder.

ARTICLE X
Miscellaneous

10.1 No Employment Rights

Nothing in the Plan shall be deemed to give any person any right to remain in the employ of the Company or other member of the Controlled Group, as applicable, or affect any right of the Company or other member of the Controlled Group, as applicable, to terminate a person's employment with or without cause.

10.2 Anti-Assignment

No benefit under the Plan shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance, charge, execution, attachment, garnishment, or any other legal process. Any attempt to take such action shall be void and shall authorize the Administrator, in its sole and absolute discretion, to forfeit all further right and interest in any benefit under this Plan. In addition, a Participant's Account may be reduced by the amount of any tax obligation paid by the Company or other member of the Controlled Group, as applicable, on behalf of a Participant, Beneficiary, or any other person, if such individual fails to reimburse the Company or other member of the Controlled Group, as applicable, for such obligation.

10.3 Unfunded Status of Plan

No funds shall be segregated or earmarked for or in the Account of any current or former Participant, Beneficiary or other person under the Plan. However, the Company or other member of the Controlled Group, as applicable, may establish one or more trusts to assist in meeting its obligations under the Plan, the assets of which shall be subject to the claims of the general creditors of the Company or other member of the Controlled Group, as applicable. No current or former Participant, Beneficiary or other person, individually or as a member of a group, shall have any right, title or interest in any account, fund, grantor trust, or any asset that may be acquired by the Company or other member of the Controlled Group, as applicable, in respect of its obligations under the Plan (other than as a general creditor of the Company or other member of the Controlled Group, as applicable, with an unsecured claim against its general assets).

10.4 Delays or Acceleration in Payment

Payment of benefits under this Plan may be delayed or accelerated to the extent permitted by Code section 409A, as determined by the Administrator.

10.5 Involuntary Inclusion in Income

If a determination is made that the Account of any Participant (or his or her Beneficiary) is subject to current income taxation under Code section 409A, then the taxable portion of such Account will be immediately distributed to the Participant (or his or her Beneficiary), notwithstanding the general timing rules otherwise described herein.

10.6 Compliance with Code Section 409A

It is intended that amounts deferred under this Plan will not be taxable under Code section 409A with respect to any individual. All provisions of this Plan shall be construed in a manner consistent with this intent.

10.7 Construction

The validity of the Plan or any of its provisions will be determined under and will be construed according to federal law and, to the extent permissible, according to the internal laws of the state of Illinois. If any provision of the Plan is held illegal or invalid for any reason, such determination will not affect the remaining provisions of the Plan and the Plan will be construed and enforced as if said illegal or invalid provision had never been included.

10.8 Legal Action

No legal action may be brought in court on a claim for benefits under the Plan after 180 days following the decision on appeal (or 180 days following the expiration of the time to make an appeal decision if no appeal is made).

10.9 Tax Withholding

The Company, or other member of the Controlled Group, as applicable, has the right to deduct any federal, state, local or foreign taxes that are required to be withheld from any payments made hereunder. In addition, if prior to the date of payment of any amount hereunder, the Federal Insurance Contributions Act (FICA) tax imposed under Code Sections 3101, 3121(a) and 3121(v)(2), where applicable, becomes due, then the Company, or other member of the Controlled Group, as applicable, shall have the right to deduct such tax from any other payments made to the Participant or direct that the Participant's Account be reduced by the amount needed to pay the Participant's portion of such tax, plus an amount equal to the withholding taxes due under federal, state or local law resulting from the payment of such FICA tax, and an additional amount to pay the additional income tax at source on wages attributable to the pyramiding of the Code section 3401 wages and taxes, but no greater than the aggregate of the FICA tax amount and the income tax withholding related to such FICA tax amount.

APPENDIX A
List of Excluded Entities

As of January 1, 2019, Employees of the following entities are not eligible to participate in The Boeing Company Executive Supplemental Savings Plan:

- Aviall, Inc.
- Inventory Locator Service, LLC

This Appendix A may be updated by the Administrator from time to time without the need for a formal amendment to the Plan.

EXHIBIT 15

LETTER IN LIEU OF CONSENT FOR REVIEW REPORT

July 24, 2019

To the Board of Directors and Shareholders of
The Boeing Company
Chicago, Illinois

We have reviewed, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the unaudited interim financial information of The Boeing Company and subsidiaries for the periods ended June 30, 2019 and 2018 , as indicated in our report dated July 24, 2019 ; because we did not perform an audit, we expressed no opinion on that information.

We are aware that our report referred to above, which is included in your Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 , is incorporated by reference in Registration Statement Nos. 33-25332, 33-31434, 33-43854, 33-58798, 33-52773, 333-16363, 333-26867, 333-32461, 333-32491, 333-32499, 333-32567, 333-41920, 333-54234, 333-73252, 333-107677, 333-140837, 333-156403, 333-160752, 333-163637, 333-195777, and 333-228097 on Form S-8, and Registration Statement No. 333-219630 on Form S-3.

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

/s/ Deloitte & Touche LLP

Chicago, Illinois

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
RULE 13a-14 OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Dennis A. Muilenburg , certify that:

1. I have reviewed this quarterly report on Form 10-Q of The Boeing Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 24, 2019

/s/ Dennis A. Muilenburg

Dennis A. Muilenburg
Chairman, President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION PURSUANT TO
RULE 13a-14 OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Gregory D. Smith , certify that:

1. I have reviewed this quarterly report on Form 10-Q of The Boeing Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 24, 2019

/s/ Gregory D. Smith

Gregory D. Smith
Chief Financial Officer and Executive Vice President, Enterprise Performance and Strategy

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of The Boeing Company (the “Company”) on Form 10-Q for the period ending June 30, 2019 , as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Dennis A. Muilenburg , Chairman, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Dennis A. Muilenburg

Dennis A. Muilenburg
Chairman, President and Chief Executive Officer

July 24, 2019

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of The Boeing Company (the “Company”) on Form 10-Q for the period ending June 30, 2019 , as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Gregory D. Smith , Chief Financial Officer and Executive Vice President, Enterprise Performance and Strategy of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Gregory D. Smith

Gregory D. Smith
Chief Financial Officer and Executive Vice President, Enterprise Performance and Strategy

July 24, 2019