

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, 2020

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 22, 2020, there were 564,448,738 shares of common stock, $5.00 par value, issued and outstanding.

THE BOEING COMPANY
FORM 10-Q
For the Quarter Ended June 30, 2020
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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**	
	2020	2019	**2020**	2019
Sales of products	**$23,254**	$33,319	**$9,063**	$13,094
Sales of services	**5,461**	5,349	**2,744**	2,657
Total revenues	**28,715**	38,668	**11,807**	15,751
Cost of products	**(25,091)**	(31,910)	**(10,378)**	(15,672)
Cost of services	**(4,632)**	(4,511)	**(2,589)**	(2,122)
Boeing Capital interest expense	**(23)**	(34)	**(11)**	(16)
Total costs and expenses	**(29,746)**	(36,455)	**(12,978)**	(17,810)
	(1,031)	2,213	**(1,171)**	(2,059)
(Loss)/income from operating investments, net	**(47)**	5	**(45)**	(15)
General and administrative expense	**(2,034)**	(1,856)	**(1,161)**	(672)
Research and development expense, net	**(1,297)**	(1,692)	**(625)**	(826)
Gain on dispositions, net	**92**	300	**38**	192
Loss from operations	**(4,317)**	(1,030)	**(2,964)**	(3,380)
Other income, net	**206**	213	**94**	107
Interest and debt expense	**(815)**	(277)	**(553)**	(154)
Loss before income taxes	**(4,926)**	(1,094)	**(3,423)**	(3,427)
Income tax benefit	**1,890**	301	**1,028**	485
Net loss	**(3,036)**	(793)	**(2,395)**	(2,942)
Less: net loss attributable to noncontrolling interest	**(32)**		**(19)**	
Net loss attributable to Boeing Shareholders	**($3,004)**	($793)	**($2,376)**	($2,942)
Basic loss per share	**($5.31)**	($1.40)	**($4.20)**	($5.21)
Diluted loss per share	**($5.31)**	($1.40)	**($4.20)**	($5.21)
Weighted average diluted shares (millions)	**566.1**	566.6	**566.4**	565.3

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**	
	2020	2019	**2020**	2019
Net loss	**($3,036)**	($793)	**($2,395)**	($2,942)
Other comprehensive (loss)/income, net of tax:				
Currency translation adjustments	**(33)**	(2)	**44**	(3)
Unrealized gain on certain investments, net of tax of $0 in all periods		1		
Unrealized (loss)/gain on derivative instruments:				
Unrealized (loss)/gain arising during period, net of tax of $54, $5, ($23) and $8	**(186)**	(17)	**89**	(28)
Reclassification adjustment for losses/(gains) included in net loss, net of tax of ($4), $1, ($3) and $0	**12**	(3)	**10**	(1)
Total unrealized (loss)/gain on derivative instruments, net of tax	**(174)**	(20)	**99**	(29)
Defined benefit pension plans and other postretirement benefits:				
Amortization of prior service credits included in net periodic pension cost, net of tax of $12, $13, $6 and $7	**(45)**	(45)	**(22)**	(22)
Net actuarial loss arising during the period, net of tax of $3, $0, $3 and $0	**(12)**		**(12)**	
Amortization of actuarial losses included in net periodic pension cost, net of tax of ($103), ($65), ($50) and ($33)	**390**	233	**197**	115
Settlements and curtailments included in net loss, net of tax of ($1), $0, ($1) and $0	**2**		**2**	
Pension and postretirement cost related to our equity method investments, net of tax of $0, ($2), $0, and $0		8		
Total defined benefit pension plans and other postretirement benefits, net of tax	**335**	196	**165**	93
Other comprehensive income, net of tax	**128**	175	**308**	61
Comprehensive loss related to noncontrolling interests		(7)		(7)
Comprehensive loss, net of tax	**(2,908)**	(625)	**(2,087)**	(2,888)
Less: Comprehensive loss related to noncontrolling interest	**(32)**	(7)	**(19)**	(7)
Comprehensive loss attributable to Boeing Shareholders, net of tax	**($2,876)**	($618)	**($2,068)**	($2,881)

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 2020**	December 31 2019
Assets		
Cash and cash equivalents	**$19,992**	$9,485
Short-term and other investments	**12,438**	545
Accounts receivable, net	**2,793**	3,266
Unbilled receivables, net	**8,570**	9,043
Current portion of customer financing, net	**115**	162
Inventories	**83,745**	76,622
Other current assets, net	**2,624**	3,106
Total current assets	**130,277**	102,229
Customer financing, net	**2,054**	2,136
Property, plant and equipment, net of accumulated depreciation of $19,863 and $19,342	**12,182**	12,502
Goodwill	**8,064**	8,060
Acquired intangible assets, net	**3,019**	3,338
Deferred income taxes	**729**	683
Investments	**1,066**	1,092
Other assets, net of accumulated amortization of $617 and $580	**5,481**	3,585
Total assets	**$162,872**	$133,625
Liabilities and equity		
Accounts payable	**$13,700**	$15,553
Accrued liabilities	**22,493**	22,868
Advances and progress billings	**53,367**	51,551
Short-term debt and current portion of long-term debt	**2,922**	7,340
Total current liabilities	**92,482**	97,312
Deferred income taxes	**404**	413
Accrued retiree health care	**4,427**	4,540
Accrued pension plan liability, net	**15,663**	16,276
Other long-term liabilities	**2,821**	3,422
Long-term debt	**58,457**	19,962
Total liabilities	**174,254**	141,925
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	**6,648**	6,745
Treasury stock, at cost - 447,840,938 and 449,352,405 shares	**(54,829)**	(54,914)
Retained earnings	**47,478**	50,644
Accumulated other comprehensive loss	**(16,025)**	(16,153)
Total shareholders' equity	**(11,667)**	(8,617)
Noncontrolling interests	**285**	317
Total equity	**(11,382)**	(8,300)
Total liabilities and equity	**$162,872**	$133,625

See Notes to the Condensed Consolidated Financial Statements.

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

(Dollars in millions)	**Six months ended June 30**	
	2020	2019
Cash flows – operating activities:		
Net loss	**($3,036)**	($793)
Adjustments to reconcile net loss to net cash (used)/provided by operating activities:		
Non-cash items –		
Share-based plans expense	**115**	104
Depreciation and amortization	**1,103**	1,067
Investment/asset impairment charges, net	**280**	70
Customer financing valuation adjustments	**9**	249
Gain on dispositions, net	**(92)**	(300)
Other charges and credits, net	**815**	145
Changes in assets and liabilities –		
Accounts receivable	**143**	588
Unbilled receivables	**285**	(222)
Advances and progress billings	**1,822**	1,842
Inventories	**(6,741)**	(5,233)
Other current assets	**433**	(887)
Accounts payable	**(3,181)**	2,002
Accrued liabilities	**514**	4,959
Income taxes receivable, payable and deferred	**(1,894)**	(921)
Other long-term liabilities	**(109)**	(509)
Pension and other postretirement plans	**(357)**	(390)
Customer financing, net	**62**	347
Other	**247**	80
Net cash (used)/provided by operating activities	**(9,582)**	2,198
Cash flows – investing activities:		
Property, plant and equipment additions	**(776)**	(922)
Property, plant and equipment reductions	**96**	331
Acquisitions, net of cash acquired		(492)
Contributions to investments	**(12,557)**	(496)
Proceeds from investments	**543**	758
Purchase of distribution rights		(20)
Other	**8**	(12)
Net cash used by investing activities	**(12,686)**	(853)
Cash flows – financing activities:		
New borrowings	**42,302**	11,670
Debt repayments	**(8,265)**	(6,422)
Contributions from noncontrolling interests		7
Stock options exercised	**27**	47
Employee taxes on certain share-based payment arrangements	**(164)**	(238)
Common shares repurchased		(2,651)
Dividends paid	**(1,158)**	(2,317)
Net cash provided by financing activities	**32,742**	96
Effect of exchange rate changes on cash and cash equivalents, including restricted	**(11)**	(2)
Net increase in cash & cash equivalents, including restricted	**10,463**	1,439
Cash & cash equivalents, including restricted, at beginning of year	**9,571**	7,813
Cash & cash equivalents, including restricted, at end of period	**20,034**	9,252
Less restricted cash & cash equivalents, included in Investments	**42**	85
Cash and cash equivalents at end of period	**$19,992**	$9,167

See Notes to the Condensed Consolidated Financial Statements.

The Boeing Company and Subsidiaries
Condensed Consolidated Statements of Equity
For the six months ended June 30, 2020 and 2019
(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, 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)
Balance at December 31, 2019	**$5,061**	**$6,745**	**($54,914)**	**$50,644**	**($16,153)**	**$317**	**($8,300)**
Impact of ASU 2016-13				**(162)**			**(162)**
Balance at January 1, 2020	**$5,061**	**$6,745**	**($54,914)**	**$50,482**	**($16,153)**	**$317**	**($8,462)**
Net loss				**(3,004)**		**(32)**	**(3,036)**
Other comprehensive income, net of tax of ($39)					**128**		**128**
Share-based compensation and related dividend equivalents		**115**					**115**
Treasury shares issued for stock options exercised, net		**(20)**	**47**				**27**
Treasury shares issued for other share-based plans, net		**(192)**	**38**				**(154)**
Balance at June 30, 2020	**$5,061**	**$6,648**	**($54,829)**	**$47,478**	**($16,025)**	**$285**	**($11,382)**

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, 2020 and 2019
(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 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)
Balance at April 1, 2020	**$5,061**	**$6,595**	**($54,842)**	**$49,854**	**($16,333)**	**$305**	**($9,360)**
Net loss				**(2,376)**		**(19)**	**(2,395)**
Other comprehensive (loss)/income, net of tax of ($68)					**308**		**308**
Share-based compensation and related dividend equivalents		**60**					**60**
Treasury shares issued for stock options exercised, net		**(4)**	**11**				**7**
Treasury shares issued for other share-based plans, net		**(3)**	**2**				**(1)**
Changes in noncontrolling interests						**(1)**	**(1)**
Balance at June 30, 2020	**$5,061**	**$6,648**	**($54,829)**	**$47,478**	**($16,025)**	**$285**	**($11,382)**

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**	
	2020	2019	**2020**	2019
Revenues:				
Commercial Airplanes	**$7,838**	$16,544	**$1,633**	$4,722
Defense, Space & Security	**12,630**	13,166	**6,588**	6,579
Global Services	**8,116**	9,162	**3,488**	4,543
Boeing Capital	**134**	141	**69**	75
Unallocated items, eliminations and other	**(3)**	(345)	**29**	(168)
Total revenues	**$28,715**	$38,668	**$11,807**	$15,751
Earnings/(loss) from operations:				
Commercial Airplanes	**($4,830)**	($3,773)	**($2,762)**	($4,946)
Defense, Space & Security	**409**	1,827	**600**	975
Global Services	**36**	1,340	**(672)**	687
Boeing Capital	**17**	57	**(7)**	37
Segment operating loss	**(4,368)**	(549)	**(2,841)**	(3,247)
Unallocated items, eliminations and other	**(651)**	(1,210)	**(478)**	(498)
FAS/CAS service cost adjustment	**702**	729	**355**	365
Loss from operations	**(4,317)**	(1,030)	**(2,964)**	(3,380)
Other income, net	**206**	213	**94**	107
Interest and debt expense	**(815)**	(277)	**(553)**	(154)
Loss before income taxes	**(4,926)**	(1,094)	**(3,423)**	(3,427)
Income tax benefit	**1,890**	301	**1,028**	485
Net loss	**(3,036)**	(793)	**(2,395)**	(2,942)
Less: Net loss attributable to noncontrolling interest	**(32)**		**(19)**	
Net loss attributable to Boeing Shareholders	**($3,004)**	($793)	**($2,376)**	($2,942)

This information is an integral part of the Notes to the Condensed Consolidated Financial Statements. See Note 19 for further segment results.

The Boeing Company and Subsidiaries
Notes to the Condensed Consolidated Financial Statements
(Dollars in millions, except otherwise stated)
(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, 2020 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 2019 Annual Report on Form 10-K. Certain amounts in prior periods have been adjusted to conform with the current year presentation.

Liquidity Matters

The global outbreak of COVID-19 coupled with the ongoing grounding of the 737 MAX airplane is having a significant adverse impact on our business and is expected to significantly reduce revenue, earnings and operating cash flow in future quarters. The aerospace industry is facing an unprecedented shock to demand for air travel which creates a tremendous challenge for our customers, our business and the entire aerospace manufacturing and services sector. We currently expect it will take approximately three years for travel to return to 2019 levels and a few years beyond that for the industry to return to long-term trend growth. There is significant uncertainty with respect to when commercial air traffic levels will recover, and whether and at what point capacity will return to and/or exceed pre-COVID-19 levels.

During the first half of 2020, net cash used by operating activities was $9.6 billion and we expect negative operating cash flows in future quarters until deliveries ramp up. In the first quarter of 2020, we entered into and fully drew on a $13.8 billion two-year delayed draw term loan credit agreement (delayed draw term loan facility). In the second quarter of 2020, we issued $25 billion of fixed rate senior notes that mature between 2023 and 2060. As a result, our cash and short-term investment balance has increased to $32.4 billion and our debt balance has increased to $61.4 billion at June 30, 2020.

The major credit rating agencies downgraded our short term and long term credit ratings during the first half of 2020, and there is risk for further downgrades. At June 30, 2020, debt includes $2.4 billion of commercial paper down from $6.1 billion at December 31, 2019. Commercial paper at June 30, 2020 includes $0.5 billion and $1.9 billion maturing in the third and fourth quarters of 2020. In the current environment, we may have limited future access to the commercial paper market. In addition, we have term notes of $350 maturing in the fourth quarter of 2020.

At June 30, 2020, trade payables included $4.4 billion payable to suppliers who have elected to participate in supply chain financing programs. While access to supply chain financing could be curtailed if our credit ratings are downgraded, we do not believe that changes in the availability of supply chain financing will have a significant impact on our liquidity.

At June 30, 2020 and December 31, 2019 we had $9.6 billion of unused borrowing capacity on revolving credit agreements. We anticipate that these credit lines will primarily serve as back-up liquidity to support our general corporate borrowing needs. We plan to negotiate extending these facilities in the fourth quarter of 2020 when $3.2 billion of the $9.6 billion comes up for renewal.

In addition to our debt issuances, we have taken a number of actions to improve liquidity. During the first quarter of 2020, our Board of Directors terminated its prior authorization to repurchase shares of the Company's outstanding common stock and suspended the declaration and/or payment of dividends until further notice. We have also reduced production rates in our commercial business to reflect the impact of COVID-19 on the industry. We have furloughed certain employees and are executing on our plans to reduce our workforce through a combination of voluntary and involuntary layoffs and natural turnover. In the second quarter of 2020, we recorded severance costs for approximately 19,000 employees, of which approximately

6,000 have left the Company as of June 30, 2020, and the remainder are expected to leave in the second half of 2020.

We are reducing discretionary spending as well as reducing or deferring research and development and capital expenditures. We are also working with our customers and supply chain to accelerate receipts and conserve cash. For example, the United States Department of Defense (U.S. DoD) has taken steps to work with its industry partners to increase liquidity in the form of increased progress payment rates and reductions in withholds among other initiatives. We are also deferring certain tax payments pursuant to the Coronavirus Aid, Relief, and Economic Security (CARES) Act.

Based on our current best estimates of market demand, planned production rates, timing of cash receipts and expenditures, our ability to successfully implement further actions to improve liquidity as well our ability to access additional liquidity, if needed, we believe it is probable that we will be able to fund our operations for the foreseeable future.

Standards Issued and Implemented

In the first quarter of 2020, we adopted ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instr*uments (ASU 2016-13), using a modified retrospective method, which resulted in the recognition of allowances for credit losses on our Condensed Consolidated Statement of Financial Position as of January 1, 2020 and a $162 cumulative-effect adjustment to retained earnings to align our credit loss methodology with the new standard. The standard replaces the incurred loss impairment methodology under Topic 310 with a methodology that reflects expected credit losses and requires the use of a forward-looking expected credit loss model for accounts receivables, loans, and certain other financial assets. See Note 5 and 8 for additional disclosures.

In the first quarter of 2020, we also adopted ASU 2017-04, *Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment (*ASU 2017-04). See Note 2 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, 2019. Our updated significant accounting policies described below reflect the impact of adopting Topic 326.

Allowances for losses on certain financial assets

We establish allowances for credit losses on accounts receivable, unbilled receivables, customer financing receivables, and certain other financial assets. The adequacy of these allowances are assessed quarterly through consideration of factors including, but not limited to, customer credit ratings, bankruptcy filings, published or estimated credit default rates, age of the receivable, expected loss rates and collateral exposures. 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 major credit rating agencies.

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. We believe that the accounting estimates and assumptions are appropriate given the increased uncertainties surrounding the severity and duration of the impacts of the COVID-19 pandemic, however 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 periods' 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**	
	2020	2019	**2020**	2019
(Decrease)/increase to Revenue	**($290)**	$229	**$144**	$69
(Decrease)/increase to (Loss)/earnings from operations	**($749)**	$175	**$90**	$28
(Decrease)/increase to Diluted EPS	**($0.82)**	$0.22	**$0.11**	$0.04

Note 2 – Goodwill and Acquired Intangibles

In the first quarter of 2020, we adopted ASU 2017-04, *Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The standard simplifies the quantitative impairment test from a two-step process to a one-step process. The quantitative test is performed by comparing the carrying value of net assets to the estimated fair value of the related operations. If the fair value is determined to be less than carrying value, the shortfall up to the carrying value of the goodwill represents the amount of goodwill impairment. The standard continues to permit a company to test goodwill for impairment by performing a qualitative assessment or using the quantitative test.

We completed our annual assessment of goodwill as of April 1, 2020 and determined that the fair value of each reporting unit exceeded its corresponding carrying value and that there is no impairment of goodwill.

The COVID-19 pandemic continues to impact our Commercial Airplanes and Commercial Services businesses. Therefore, we believe the COVID-19 pandemic is a triggering event in the second quarter of 2020 for testing whether goodwill recorded by our Commercial Airplanes and Commercial Services reporting units is impaired. At June 30, 2020, Commercial Airplanes has $1,315 of goodwill and Commercial Services has $3,056. We performed a qualitative assessment and determined it is not more likely than not that the fair values of our Commercial Airplane and Commercial Services reporting units were less than their carrying values as of June 30, 2020. We will continue to monitor the impacts of the COVID-19 pandemic in future quarters. Changes in our forecasts or further decreases in the value of our common stock could cause book values to exceed fair values which may result in goodwill impairment charges in future periods.

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**	
	2020	2019	**2020**	2019
Net loss attributable to Boeing Shareholders	**($3,004)**	($793)	**($2,376)**	($2,942)
Less: earnings available to participating securities				
Net loss available to common shareholders	**($3,004)**	($793)	**($2,376)**	($2,942)
Basic				
Basic weighted average shares outstanding	**566.1**	566.6	**566.4**	565.3
Less: participating securities	**0.5**	0.6	**0.5**	0.6
Basic weighted average common shares outstanding	**565.6**	566.0	**565.9**	564.7
Diluted				
Basic weighted average shares outstanding	**566.1**	566.6	**566.4**	565.3
Dilutive potential common shares[(1)]				
Diluted weighted average shares outstanding	**566.1**	566.6	**566.4**	565.3
Less: participating securities	**0.5**	0.6	**0.5**	0.6
Diluted weighted average common shares outstanding	**565.6**	566.0	**565.9**	564.7
Net loss per share:				
Basic	**($5.31)**	($1.40)	**($4.20)**	($5.21)
Diluted	**(5.31)**	(1.40)	**(4.20)**	(5.21)

(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, 2020 potential common shares of 1.8 million and 1.2 million were excluded from diluted loss per share because the effect would have been antidilutive. 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 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**	
	2020	2019	**2020**	2019
Performance awards	**6.1**	2.7	**5.5**	2.7
Performance-based restricted stock units	**1.4**	0.6	**1.4**	0.6

Note 4 – Income Taxes

Our effective income tax rates were 38.4% and 30.0% for the six and three months ended June 30, 2020 and 27.5% and 14.2% for the same periods in the prior year. The 2020 tax rate includes tax benefits from the CARES Act enacted on March 27, 2020 due to the Act's five year net operating loss carry back provision while the 2019 tax rate reflects tax benefits associated with intangible income derived from serving non-U.S. markets. The carry back provisions enable us to benefit from certain losses and re-measure certain deferred tax assets and liabilities at the former federal tax rate of 35%. The tax rates in 2020 and 2019 also reflect research and development tax credits and excess tax benefits related to share-based payments.

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 2007-2018 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 federal matters under audit may decrease by up to $690 based on current estimates.

Note 5 - Allowances for Losses on Financial Assets

Upon adoption of ASU 2016-13, we recorded a $162 cumulative-effect adjustment to retained earnings to increase our allowances for credit losses, resulting in a balance of $337 as of January 1, 2020. The change in allowances for expected credit losses for the six months ended June 30, 2020 consisted of the following:

	Accounts receivable, net	Unbilled receivables, net	Other Current Assets, net	Customer financing, net	Other Assets, net	Total
Balance at January 1, 2020	**($138)**	**($81)**	**($38)**	**($5)**	**($75)**	**($337)**
Changes in estimates	**(246)**	**(107)**	**(10)**	**(9)**	**(34)**	**(406)**
Write-offs	**3**					**3**
Balance at June 30, 2020	**($381)**	**($188)**	**($48)**	**($14)**	**($109)**	**($740)**

Note 6 – Inventories

Inventories consisted of the following:

	June 30 2020	December 31 2019
Long-term contracts in progress	**$957**	$1,187
Commercial aircraft programs	**71,945**	66,016
Commercial spare parts, used aircraft, general stock materials and other	**10,843**	9,419
Total	**$83,745**	$76,622

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 $176 at June 30, 2020 and December 31, 2019. See indemnifications to ULA in Note 11.

Included in inventories are capitalized precontract costs of $794 at June 30, 2020 and $711 at December 31, 2019 primarily related to the KC-46A Tanker and Commercial Crew. See Note 10.

Commercial Aircraft Programs

At June 30, 2020 and December 31, 2019, commercial aircraft programs inventory included $1,209 and $1,313 of deferred production costs and $506 and $521 of unamortized tooling and other non-recurring costs related to the 737 program. At June 30, 2020, $1,678 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 $37 is expected to be recovered from units included in the program accounting quantity that represent expected future orders.

At June 30, 2020 and December 31, 2019, commercial aircraft programs inventory included the following amounts related to the 777X program: $6,854 and $5,628 of work in process and $3,141 and $2,914 of unamortized tooling and other non-recurring costs.

At June 30, 2020 and December 31, 2019, commercial aircraft programs inventory included the following amounts related to the 787 program: $27,515 and $24,772 of work in process (including deferred production costs of $16,035 and $18,716), $2,006 and $2,202 of supplier advances, and $1,924 and $2,092 of unamortized tooling and other non-recurring costs. At June 30, 2020, $15,496 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 $2,463 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 $2,941 and $2,863 at June 30, 2020 and December 31, 2019.

Note 7 – Contracts with Customers

Unbilled receivables decreased from $9,043 at December 31, 2019 to $8,570 at June 30, 2020, primarily driven by an increase in billings at Defense, Space & Security (BDS) and Global Services (BGS), as well as an increase in allowances for expected credit losses at BGS.

Advances and progress billings increased from $51,551 at December 31, 2019 to $53,367 at June 30, 2020, primarily driven by advances on orders received in excess of revenue recognized at Commercial Airplanes (BCA), BDS and BGS.

Revenues recognized during the six months ended June 30, 2020 and 2019 from amounts recorded as Advances and progress billings at the beginning of each year were $5,255 and $10,116. Revenues recognized during the three months ended June 30, 2020 and 2019 from amounts recorded as Advances and progress billings at the beginning of each year were $1,465 and $4,219.

Note 8 – Customer Financing

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

	June 30 2020	December 31 2019
Financing receivables:		
Investment in sales-type/finance leases	**$965**	$1,029
Notes	**433**	443
Total financing receivables	**1,398**	1,472
Operating lease equipment, at cost, less accumulated depreciation of $248 and $235	**785**	834
Gross customer financing	**2,183**	2,306
Less allowance for losses on receivables	**(14)**	(8)
Total	**$2,169**	$2,298

We acquire aircraft to be leased to customers through trades, lease returns, purchases in the secondary market, and new aircraft transferred from our BCA 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, 2020 and December 31, 2019, we individually evaluated for impairment customer financing receivables of $393 and

$400, of which $381 and $388 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.

We determine a receivable is past due when cash has not been received upon the due date specified in the contract. Customer financing receivables past due as of June 30, 2020 is $8.

We evaluate the collectability of customer financing receivables at commencement and on a recurring basis. If a customer financing receivable is deemed uncollectable, the customer is categorized as non-accrual status. When a customer is in non-accrual status at commencement, revenue is deferred until substantially all cash has been received or the customer is removed from non-accrual status. If a customer status changes to non-accrual after commencement and sufficient collateral is available, we recognize contractual interest income as payments are received to the extent payments exceed past due principal payments. If there is not sufficient collateral, then revenue is not recognized until payments exceed the principal balance. Receivables in non-accrual status as of June 30, 2020 and December 31, 2019 were $381 and $388. Interest income received for the six and three months ended June 30, 2020 was $21 and $13.

The adequacy of the allowance for losses is assessed quarterly. Four primary factors influencing the level of our allowance for losses on customer financing receivables are customer credit ratings, default rates, expected loss rate and collateral values, which may be adversely affected by impacts that COVID-19 has on our customers. 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 at June 30, 2020 by internal credit rating category and year of origination consisted of the following:

Rating categories	Current	2019	2018	2017	2016	Prior	Total
BBB						$400	$400
BB	$69	$54	$17			152	292
B				$53		171	224
CCC		38		251	$180	13	482
Total carrying value of financing receivables	$69	$92	$17	$304	$180	$736	$1,398

At June 30, 2020, our allowance related to receivables with ratings of CCC, B, BB, and BBB. We applied default rates that averaged 26%, 8.8%, 3.1%, and 0.2%, 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. Certain collateral values are being adversely impacted by COVID-19. 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 2020	December 31 2019
717 Aircraft ($113 and $124 accounted for as operating leases)	**$689**	$736
747-8 Aircraft ($124 and $130 accounted for as operating leases)	**483**	475
737 Aircraft ($231 and $240 accounted for as operating leases)	**253**	263
777 Aircraft ($230 and $236 accounted for as operating leases)	**232**	240
MD-80 Aircraft (accounted for as sales-type finance leases)	**171**	186
757 Aircraft ($14 and $22 accounted for as operating leases)	**166**	182
747-400 Aircraft ($28 and $31 accounted for as operating leases)	**81**	90

Lease income recorded in Revenue on the Condensed Consolidated Statements of Operations for the six months ended June 30, 2020 and 2019 included $29 and $32 from sales-type/finance leases, and $62 and $71 from operating leases, of which $4 and $5 related to variable operating lease payments. Lease income recorded in Revenue on the Condensed Consolidated Statements of Operations for the three months ended June 30, 2020 and 2019 included $14 and $16 from sales-type/finance leases, and $31 and $35 from operating leases, of which $3 and $2 related to variable operating lease payments.

Note 9 – Investments

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

	June 30 2020	December 31 2019
Equity method investments [(1)]	**$998**	$1,031
Time deposits	**11,981**	50
Available for sale debt instruments	**411**	405
Equity and other investments	**72**	65
Restricted cash & cash equivalents[(2)]	**42**	86
Total	**$13,504**	$1,637

(1) Dividends received were $53 and $20 for the six and three months ended June 30, 2020 and $93 and $30 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.

Allowance for losses on available for sale debt instruments are assessed quarterly. All instruments are considered investment grade and, as such, we have not recognized an allowance for credit losses as of June 30, 2020.

Note 10 – Commitments and Contingencies

737 MAX Grounding and COVID-19 Impacts

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. Deliveries of the 737 MAX have been suspended until clearance is granted by the appropriate regulatory authorities. In addition, multiple legal actions have been filed against us as a result of the accidents. We also are fully cooperating with U.S. government investigations related to the accidents and the 737 MAX program, including investigations by the U.S. Department of Justice and the Securities and Exchange Commission, the outcome of which may

be material. We cannot reasonably estimate a range of loss, if any, not covered by available insurance that may result given the current status of the lawsuits, investigations and inquiries related to the 737 MAX.

We have developed software and pilot training updates for the 737 MAX. During the week of June 29, 2020, the FAA completed a series of flight tests to assess whether the 737 MAX meets certification safety standards. The FAA has stated that while this is an important milestone, a number of key tasks remain including evaluating data gathered during the flight tests. On July 21, 2020 the FAA announced a 45 day public comment period for their notice of proposed rulemaking relative to 737 MAX certification. The impact this will have on timing and conditions of return to service, if any, is uncertain. We continue to work with the FAA and non-U.S. civil aviation authorities to complete remaining steps toward certification and readiness for return to service including addressing their questions on the software updates and how pilots will interact with the airplane controls and displays in different flight scenarios. We have assumed that computer and simulator training will be required and as a result, we have provisioned for certain training costs.

Prior to the grounding, the 737 production rate was 52 per month, and we had planned to increase the rate to 57 per month during 2019. Beginning in the second quarter of 2019, we reduced the production rate to 42 per month. We continued to produce at a rate of 42 per month through December 2019. We temporarily suspended 737 MAX production beginning in January 2020. During the first quarter of 2020, we completed airplanes that were already in process at the end of the fourth quarter of 2019. In March 2020, we announced a temporary suspension of production operations in the Puget Sound area as a result of the COVID-19 pandemic. Production operations in Puget Sound resumed during the week of April 20, 2020, at which point the 737 team resumed preparations for restarting 737 MAX production. We resumed early stages of 737 MAX production in May 2020 and expect to continue to produce at low rates for the remainder of 2020. We have approximately 450 airplanes in inventory as of June 30, 2020.

The COVID-19 pandemic has significantly impacted air travel and reduced near-term demand, resulting in lower production and delivery rate assumptions. During the first quarter of 2020, we lowered our production rate assumptions in response to COVID-19 impacts to expected demand. During the second quarter of 2020, we further delayed our production rate ramp assumptions and now expect to gradually increase the production rate to 31 by the beginning of 2022. We expect further gradual production rate increases in subsequent periods based on market demand. We have assumed that the timing of regulatory approvals will enable 737 MAX deliveries to resume during the fourth quarter of 2020. A number of customers have requested to defer deliveries or to cancel orders for 737 MAX aircraft, which may require us to remarket and/or delay deliveries of certain aircraft included within inventory. We expect that the majority of the approximately 450 737 MAX airplanes in inventory will be delivered during the first year after the resumption of deliveries.

During 2019, the cumulative impacts of changes to assumptions regarding timing of return to service and timing of planned production rates and deliveries increased the estimated costs to produce and deliver the 3,100 undelivered aircraft then included in the accounting quantity by approximately $6.3 billion. During 2020, additional reductions in planned production rates further increased the estimated costs to produce and deliver aircraft included in the accounting quantity, but were partially offset by headcount and other cost reductions. These costs will result in lower 737 margins in future periods after deliveries resume.

During the first quarter of 2020, we reduced the number of aircraft included in the accounting quantity by 400 units as a result of reductions to planned production rates due to COVID-19 driven market uncertainties. The accounting quantity was unchanged during the second quarter. As we continue to produce at abnormally low production rates in 2020 and 2021, we expect to incur approximately $5 billion of abnormal production costs that are being expensed as incurred. The slowdown in the planned production rate ramp-up increased expected abnormal costs however this increase was offset by adjustments to the determination of the normal production level due to COVID-19 impacts on customer demand, as well as cost reduction activities, including significant reductions in employment levels. We expensed $712 and $1,509 of abnormal production costs during the three and six months ended June 30, 2020.

We have also recorded additional expenses of $121 as a result of the 737 MAX grounding in the first half of 2020. These expenses include costs related to storage, pilot training and software updates.

The following table summarizes changes in the 737 MAX customer concessions and other considerations liability during 2020.

	2020
Beginning balance – January 1	**$7,389**
Reductions for payments made	**(1,211)**
Reductions for concessions and other in-kind considerations	**(35)**
Changes in estimates	**521**
Ending balance – June 30	**$6,664**

We are working with our customers to minimize the impact to their operations from grounded and undelivered aircraft. We continue to reassess the liability for estimated potential concessions and other considerations to customers on a quarterly basis. This reassessment includes updating estimates to reflect revisions to return to service, delivery and production rate assumptions driven by timing of regulatory approvals, as well as latest information based on engagements with 737 MAX customers. The liability represents our current best estimate of future concessions and other considerations to customers, and is necessarily based on a series of assumptions. It is subject to change in future quarters as negotiations with customers mature and timing and conditions of return to service are better understood. The liability balance of $6.7 billion at June 30, 2020 includes $1.9 billion expected to be liquidated by lower customer delivery payments, $1.1 billion expected to be paid in cash and $0.1 billion in other concessions. Of the cash payments to customers, we expect to pay $0.4 billion in 2020 and $0.5 billion in 2021. The type of consideration to be provided for the remaining $3.6 billion will depend on the outcomes of negotiations with customers.

The FAA and other non-U.S. civil aviation authorities will determine the timing and conditions of return to service. Our assumptions reflect our current best estimate, but actual timing and conditions of return to service and resumption of deliveries could differ from this estimate, the effect of which could be material. 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, uncertainties related to the impacts of COVID-19 on our operations, supply chain and customers, future changes to the production rate, supply chain impacts, and/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. For example, we expect that, in the event that we are unable to resume aircraft deliveries consistent with our assumptions, the continued absence of revenue, earnings, and cash flows associated with 737 MAX deliveries would continue to have a material impact on our operating results. In the event that future production rate increases occur at a slower rate or take longer than we are currently assuming, we expect that the growth in inventory and other cash flow impacts associated with production would decrease. However, while any prolonged production suspension or delays in planned production rate increases could mitigate the impact on our liquidity, it could significantly increase the overall expected costs to produce aircraft included in the accounting quantity, which would reduce 737 program margins and/or increase abnormal production costs in the future.

Commercial air traffic has fallen dramatically due to the COVID-19 pandemic. While this trend has impacted passenger traffic most severely, near-term cargo traffic has also fallen significantly due to the global economic downturn and the reduction in cargo capacity on passenger airplanes. Airlines have significantly reduced their capacity, and many could implement further reductions in the near future. Many airlines are also implementing significant reductions in staffing. These capacity changes are causing, and are expected to continue to cause, negative impacts to our customers' revenue, earnings, and cash flow, and in some cases may threaten the future viability of some of our customers, potentially causing defaults within our customer financing portfolio and/or requiring us to remarket aircraft that have already been produced and/or are currently in backlog. If 737 MAX aircraft remain grounded for an extended period of time, we may experience additional reductions to backlog and/or significant order cancellations. Additionally, we may experience fewer new orders and increased cancellations across all of our commercial airplane programs as a result of the COVID-19 pandemic and associated impacts on demand. Our customers may also lack sufficient liquidity to purchase new aircraft due to impacts from the pandemic. We are also observing a significant increase in the number of requests for payment deferrals, contract modifications, lease restructurings and similar actions,

and these trends may lead to additional earnings charges, impairments and other adverse financial impacts in our business over time. In addition, to the extent that customers have valid rights to cancel undelivered aircraft, we may be required to refund pre-delivery payments, putting additional constraints on our liquidity. In addition to the near-term impact, there is risk that the industry implements longer-term strategies involving reduced capacity, shifting route patterns, and mitigation strategies related to impacts from COVID-19 and the risk of future public health crises. In addition, airlines may experience reduced demand due to reluctance by the flying public to travel due to travel restrictions and/or social distancing requirements.

As a result, there is significant uncertainty with respect to when commercial air traffic levels will begin to recover, and whether and at what point capacity will return to and/or exceed pre-COVID-19 levels. The COVID-19 pandemic also has increased, and its aftermath is also expected to continue to increase, uncertainty with respect to global trade volumes, putting significant negative pressure on cargo traffic. Any of these factors would have a significant impact on the demand for both single-aisle and wide-body commercial aircraft, as well as for the services we provide to commercial airlines. In addition, a lengthy period of reduced industry-wide demand for commercial aircraft would put additional pressure on our suppliers, resulting in increased procurement costs and/or additional supply chain disruption. To the extent that the COVID-19 pandemic or its aftermath further impacts demand for our products and services or impairs the viability of some of our customers and/or suppliers, our financial condition, results of operations, and cash flows could be adversely affected, and those impacts could be material.

Environmental

The following table summarizes environmental remediation activity during the six months ended June 30, 2020 and 2019.

	2020	2019
Beginning balance – January 1	**$570**	$555
Reductions for payments made	**(21)**	(24)
Changes in estimates	**11**	17
Ending balance – June 30	**$560**	$548

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, 2020 and December 31, 2019, the high end of the estimated range of reasonably possible remediation costs exceeded our recorded liabilities by $1,088 and $1,077.

Product Warranties

The following table summarizes product warranty activity recorded during the six months ended June 30, 2020 and 2019.

	2020	2019
Beginning balance – January 1	**$1,267**	$1,127
Additions for current year deliveries	**34**	83
Reductions for payments made	**(149)**	(64)
Changes in estimates	**395**	(83)
Ending balance – June 30	**$1,547**	$1,063

The increase in the product warranty reserve during the six months ended June 30, 2020 is primarily driven by charges related to “pickle forks” on 737NG aircraft. During 2019, we detected cracks in the "pickle forks", a frame fitting component of the structure connecting the wings to the fuselages of 737NG aircraft. We notified the FAA, which issued a directive requiring that certain 737NG airplanes be inspected. We have estimated the number of aircraft that will have to be repaired in the future and provisioned for the estimated costs of completing the repairs. We recognized charges of $135 in 2019 for current and projected future aircraft repairs. During the first quarter of 2020, we recognized additional charges of $336 based on revised engineering and fleet utilization estimates as well as updated repair cost estimates. We cannot estimate a range of reasonably possible losses, if any, in excess of amounts recognized due to the ongoing nature of the inspections and repairs and pending the completion of investigations into the cause of the condition.

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, 2020 have expiration dates from 2020 through 2026. At June 30, 2020 and December 31, 2019 total contractual trade-in commitments were $1,165 and $1,407. As of June 30, 2020 and December 31, 2019, we estimated that it was probable we would be obligated to perform on certain of these commitments with net amounts payable to customers totaling $621 and $711 and the fair value of the related trade-in aircraft was $602 and $678.

Financing Commitments

Financing commitments related to aircraft on order, including options and those proposed in sales campaigns, and refinancing of delivered aircraft, totaled $12,784 and $13,377 as of June 30, 2020 and December 31, 2019. The estimated earliest potential funding dates for these commitments as of June 30, 2020 are as follows:

	Total
July through December 2020	$2,462
2021	2,472
2022	1,368
2023	1,755
2024	1,373
Thereafter	3,354
	$12,784

As of June 30, 2020, all of these financing commitments relate 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 $243 to joint ventures over the next seven 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 $3,761 and $3,769 as of June 30, 2020 and December 31, 2019.

United States Government Defense Environment Overview

The Bipartisan Budget Act of 2019 raised the Budget Control Act limits on federal discretionary defense and non-defense spending for fiscal years 2020 and 2021 (FY20 and FY21), reducing budget uncertainty and the risk of sequestration. The consolidated appropriations acts for FY20, enacted in December 2019, provided FY20 appropriations for government departments and agencies, including the U.S. DoD, the National Aeronautics and Space Administration (NASA) and the FAA. In February 2020, the U.S. administration submitted its request for $740.5 billion in base national defense spending for FY21, congruent with the amended spending limit.

The enacted FY20 appropriations included funding for Boeing's major programs, such as the F/A-18 Super Hornet, F-15EX, CH-47 Chinook, AH-64 Apache, V-22 Osprey, KC-46A Tanker, P-8 Poseidon and Space Launch System. However, there continues to be uncertainty with respect to future program-level appropriations for the U.S. DoD and other government agencies, including NASA. Future budget cuts or investment priority changes, including changes associated with the authorizations and appropriations process, 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.

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, KC-46A Tanker, MQ-25, T-7A Red Hawk, VC-25B 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 a reach-forward loss of $978 on KC-46A Tanker in the first half of 2020. The KC-46A Tanker reach-forward loss in the first quarter of 2020 reflects $551 of costs associated with the agreement signed in April 2020 with the U.S. Air Force (USAF) to develop and integrate a new Remote Vision System, and the remaining costs reflect productivity inefficiencies and COVID-19 related factory disruption. Moreover, our fixed-price development programs remain subject to additional reach-forward losses if we experience further production, 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 to design, develop, manufacture and deliver four next generation aerial refueling tankers. This Engineering, Manufacturing and Development (EMD) contract is a fixed-price incentive fee contract and involves highly complex designs and systems integration. Since 2016, the USAF has authorized five low rate initial production (LRIP) lots for a total of 67 aircraft. The EMD contract and authorized LRIP lots are valued at approximately $15 billion.

At June 30, 2020, we had approximately $374 of capitalized precontract costs and $548 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.

Severance

During the second quarter of 2020, the Company recorded severance costs of $652 that are expected to be paid during 2020 to approximately 19,000 employees expected to leave the Company through a combination of voluntary and involuntary terminations. The severance packages are consistent with the Company's ongoing compensation and benefits plans. As of June 30, 2020 approximately 6,000 employees had left the Company and the remaining 13,000 employees are expected to leave in the third and fourth quarter of 2020. The remaining liability at June 30, 2020 was $405. In July 2020, the Company announced that the prolonged impact of COVID-19, further reductions in production rates and lower demand for commercial services will result in further assessments of the size of the Company's workforce to align with a smaller market.

Note 11 – 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 2020	December 31 2019	**June 30 2020**	December 31 2019	**June 30 2020**	December 31 2019
Contingent repurchase commitments	**$1,480**	$1,570	**$1,480**	$1,570		
Indemnifications to ULA:						
Contributed Delta inventory	**30**	30				
Inventory supply agreement	**34**	34				
Questioned costs		317				$48
Credit guarantees	**92**	92	**35**	36	**$24**	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 During the first quarter of 2020, the USAF and ULA reached a settlement regarding previously questioned deferred support and deferred production costs. As part of the settlement the USAF agreed to reimburse ULA for $307 of those costs, which was received by ULA in the second quarter. The settlement substantially retires our indemnification risks to ULA.

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 10.

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. We record a liability for the fair value of guarantees and the expected contingent loss amount, which is reviewed quarterly. Current outstanding credit guarantees expire through 2036.

Note 12 – Debt

In the first quarter of 2020, we entered into a $13,825, two-year delayed draw term loan facility, which includes additional commitments made subsequent to the initial closing date. As of June 30, 2020, we have fully drawn on the $13,825 delayed draw term loan facility, with February 6, 2022 as the final maturity date. Borrowings outstanding bear interest at the Eurodollar rate (determined in accordance with the delayed draw term loan facility agreement) plus between 0.75% and 1.25%, depending on our credit rating.

In the second quarter of 2020, we issued $25,000 of fixed rate senior notes consisting of $3,000 due May 1, 2023 that bear an annual interest rate of 4.508%, $3,500 due May 1, 2025 that bear an annual interest rate of 4.875%, $2,000 due May 1, 2027 that bear an annual interest rate of 5.04%, $4,500 due May 1, 2030 that bear an annual interest rate of 5.15%, $3,000 due May 1, 2040 that bear an annual interest rate of 5.705%, $5,500 due May 1, 2050 that bear an annual interest rate of 5.805%, and $3,500 due May 1, 2060 that bear an annual interest rate of 5.93%. 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 $24,802, after deducting underwriting discounts, commissions, and offering expenses.

Note 13 – 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	**2020**	2019	**2020**	2019
Service cost	**$1**	$2	**$1**	$1
Interest cost	**1,228**	1,462	**614**	731
Expected return on plan assets	**(1,878)**	(1,930)	**(939)**	(965)
Amortization of prior service credits	**(40)**	(40)	**(20)**	(20)
Recognized net actuarial loss	**516**	321	**258**	160
Settlement/curtailment/other losses	**3**		**3**	
Net periodic benefit income	**($170)**	($185)	**($83)**	($93)
Net periodic benefit cost included in Loss from operations	**$1**	$158	**$1**	$80
Net periodic benefit income included in Other income, net	**(171)**	(187)	**(84)**	(94)
Net periodic benefit income included in Loss before income taxes	**($170)**	($29)	**($83)**	($14)

	Six months ended June 30		Three months ended June 30	
Other Postretirement Plans	**2020**	2019	**2020**	2019
Service cost	**$43**	$39	**$22**	$20
Interest cost	**72**	98	**36**	49
Expected return on plan assets	**(5)**	(4)	**(3)**	(2)
Amortization of prior service credits	**(17)**	(18)	**(8)**	(9)
Recognized net actuarial gain	**(23)**	(23)	**(11)**	(12)
Net periodic benefit cost	**$70**	$92	**$36**	$46
Net periodic benefit cost included in Loss from operations	**$44**	$45	**$23**	$23
Net periodic benefit cost included in Other income, net	**27**	53	**14**	26
Net periodic benefit cost included in Loss before income taxes	**$71**	$98	**$37**	$49

Note 14 – Share-Based Compensation and Other Compensation Arrangements

Restricted Stock Units

On February 24, 2020, we granted to our executives 325,108 restricted stock units (RSUs) as part of our long-term incentive program with a grant date fair value of $319.04 per unit. The RSUs 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 24, 2020, we granted to our executives 290,202 performance-based restricted stock units (PBRSUs) as part of our long-term incentive program with a grant date fair value of $357.38 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 27.04% based upon historical stock volatility, a risk-free interest rate of 1.21%, and no expected dividend yield because the units earn dividend equivalents.

Performance Awards

On February 28, 2020, 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, 2022. At June 30, 2020, the minimum payout amount is $0 and the maximum amount we could be required to pay out is $305.

Note 15 – Shareholders' Equity

Accumulated Other Comprehensive Loss

Changes in Accumulated other comprehensive loss (AOCI) by component for the six and three months ended June 30, 2020 and 2019 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, 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 January 1, 2020	**($128)**	**$1**	**($84)**	**($15,942)**	**($16,153)**
Other comprehensive (loss)/income before reclassifications	**(33)**		**(186)**	**(12)**	**(231)**
Amounts reclassified from AOCI			**12**	**347** [2]	**359**
Net current period Other comprehensive (loss)/income	**(33)**		**(174)**	**335**	**128**
Balance at June 30, 2020	**($161)**	**$1**	**($258)**	**($15,607)**	**($16,025)**
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)
Balance at March 31, 2020	**($205)**	**$1**	**($357)**	**($15,772)**	**($16,333)**
Other comprehensive (loss)/income before reclassifications	**44**		**89**	**(12)**	**121**
Amounts reclassified from AOCI			**10**	**177** [2]	**187**
Net current period Other comprehensive (loss)/income	**44**		**99**	**165**	**308**
Balance at June 30, 2020	**($161)**	**$1**	**($258)**	**($15,607)**	**($16,025)**

[1] Net of tax.

[2] Primarily relates to amortization of actuarial losses for the six and three months ended June 30, 2019 totaling $233 and $115 (net of tax of ($65) and ($33)) and for the six and three months ended June 30, 2020 totaling $390 and $197 (net of tax of ($103) and ($50)). These are included in the net periodic pension cost.

Note 16 – Derivative Financial Instruments

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.

We continue to monitor the effects of the COVID-19 pandemic on our commodity cash flow hedges, including reductions in our forecasted purchases of certain commodities. As of June 30, 2020, the impact of the COVID-19 pandemic on our cash flow hedges was not significant.

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 and commodity swaps 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 2020	December 31 2019	**June 30 2020**	December 31 2019	**June 30 2020**	December 31 2019
Derivatives designated as hedging instruments:						
Foreign exchange contracts	**$3,233**	$2,590	**$7**	$29	**($165)**	($60)
Commodity contracts	**366**	645	**2**	4	**(119)**	(72)
Derivatives not receiving hedge accounting treatment:						
Foreign exchange contracts	**399**	285	**7**	1	**(6)**	(6)
Commodity contracts	**796**	1,644			**(25)**	
Total derivatives	**$4,794**	$5,164	**$16**	$34	**($315)**	($138)
Netting arrangements			**(14)**	(20)	**14**	20
Net recorded balance			**$2**	$14	**($301)**	($118)

[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**	
	2020	2019	**2020**	2019
Recognized in Other comprehensive income, net of taxes:				
Foreign exchange contracts	**($112)**	$31	**$85**	$9
Commodity contracts	**(74)**	(48)	**4**	(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	
	2020	2019	**2020**	2019
Foreign exchange contracts				
Revenues	**($1)**	$6		$1
Costs and expenses	**(6)**	(12)	**($5)**	(7)
General and administrative	**(5)**	9	**(5)**	8
Commodity contracts				
Costs and expenses	**(3)**	1	**(2)**	
General and administrative expense	**(1)**		**(1)**	(1)

Gains related to undesignated derivatives on foreign exchange and commodity cash flow hedging transactions recognized in Other income, net were $6 and $1 for the six and three months ended June 30, 2020 and $2 and $0 for the six and three months ended June 30, 2019.

Based on our portfolio of cash flow hedges, we expect to reclassify losses of $33 (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, 2020 was $54. At June 30, 2020, there was no collateral posted related to our derivatives.

Note 17 – 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, 2020			December 31, 2019		
	Total	**Level 1**	**Level 2**	Total	Level 1	Level 2
Assets						
Money market funds	**$8,877**	**$8,877**		$2,562	$2,562	
Available-for-sale debt investments:						
Commercial paper	**93**		**$93**	108		$108
Corporate notes	**321**		**321**	242		242
U.S. government agencies				55	55	
Other equity investments	**40**	**40**		33	33	
Derivatives	**2**		**2**	14		14
Total assets	**$9,333**	**$8,917**	**$416**	$3,014	$2,650	$364
Liabilities						
Derivatives	**($301)**		**($301)**	($118)		($118)
Total liabilities	**($301)**		**($301)**	($118)		($118)

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 and commodity 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.

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:

	2020		2019	
	Fair Value	**Total Losses**	Fair Value	Total Losses
Customer financing assets	**$71**	**($17)**	$10	($1)
Investments	**64**	**(49)**	72	(51)
Property, plant and equipment	**82**	**(59)**	41	(1)
Other Assets and Acquired intangible assets	**201**	**(155)**	3	(17)
Total	**$418**	**($280)**	$126	($70)

Investments, Property, plant and equipment, Other assets 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 customer financing assets 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 year ended June 30, 2020, 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
Customer financing assets	$71	Market approach	Aircraft value publications	$57 - $118[1] Median $79
			Aircraft condition adjustments	($8) - $0[2] Net ($8)

[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, 2020				
	Carrying Amount	**Total Fair Value**	**Level 1**	**Level 2**	**Level 3**
Assets					
Notes receivable, net	**$433**	**$429**		**$429**	
Liabilities					
Debt, excluding commercial paper and capital lease obligations	**(58,788)**	**(61,367)**		**(61,350)**	**($17)**

	December 31, 2019				
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
Assets					
Notes receivable, net	$443	$444		$444	
Liabilities					
Debt, excluding capital lease obligations and commercial paper	(20,964)	(23,119)		(23,081)	($38)

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, Other current assets, 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, 2020 and December 31, 2019. 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 18 – 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. Except as described below, 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 subject to, and cooperating with, ongoing governmental and regulatory investigations and inquiries relating to the accidents and the 737 MAX, including investigations by the U.S. Department of Justice and the Securities and Exchange Commission, the outcome of which may be material. We cannot reasonably estimate a range of loss, if any, not covered by available insurance that may result given the current status of the lawsuits, investigations, and inquiries related to the 737 MAX.

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 contemplated the establishment of joint ventures that included the commercial aircraft and services operations of Embraer, of which we were expected to acquire an 80 percent ownership stake for $4,200, as well as a joint venture to promote and develop new markets for the C-390 Millennium.

The transaction documents permitted either party to terminate the proposed partnership beginning on April 24, 2020, provided that certain closing conditions were not met. Based on Embraer's failure to satisfy required closing conditions, we exercised our contractual termination right during the second quarter of 2020, which Embraer has disputed. We would have been required to pay a termination fee of $100 had the transaction been terminated due to a failure to obtain antitrust approvals. Because the transaction was terminated due to a failure by Embraer to meet other closing conditions, we do not expect to be required to pay a termination fee in connection with the termination of the transaction. Boeing and Embraer are arbitrating their dispute over Boeing's termination of the agreement. We cannot reasonably estimate a range of loss, if any, that may result from the arbitration.

Note 19 – Segment and Revenue Information

Effective at the beginning of 2020, certain programs were realigned between our BDS segment and Unallocated items, eliminations and other. Business segment data for 2019 has been adjusted to reflect the realignment.

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**	
	2020	2019	**2020**	2019
Revenue from contracts with customers:				
Europe	**$2,302**	$2,684	**$332**	$1,023
Asia	**1,464**	7,534	**305**	4,360
Middle East	**556**	1,805	**7**	695
Other	**453**	2,367	**142**	829
Total non-U.S. revenues	**4,775**	14,390	**786**	6,907
United States	**3,557**	7,587	**1,383**	3,417
Estimated potential concessions and other considerations to 737 MAX customers, net	**(521)**	(5,610)	**(551)**	(5,610)
Total revenues from contracts with customers	**7,811**	16,367	**1,618**	4,714
Intersegment revenues eliminated on consolidation	**27**	177	**15**	8
Total segment revenues	**$7,838**	$16,544	**$1,633**	$4,722
Revenue recognized on fixed-price contracts	**100%**	100%	**100%**	100%
Revenue recognized at a point in time	**99%**	99%	**99%**	99%

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**	
	2020	2019	**2020**	2019
Revenue from contracts with customers:				
U.S. customers	**$9,153**	$9,719	**$4,837**	$4,836
Non U.S. customers[(1)]	**3,477**	3,447	**1,751**	1,743
Total segment revenue from contracts with customers	**$12,630**	$13,166	**$6,588**	$6,579
Revenue recognized over time	**99%**	99%	**99%**	99%
Revenue recognized on fixed-price contracts	**68%**	69%	**69%**	69%
Revenue from the U.S. government[(1)]	**89%**	88%	**89%**	89%

(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**	
	2020	2019	**2020**	2019
Revenue from contracts with customers:				
Commercial	**$3,894**	$5,111	**$1,371**	$2,526
Government	**4,099**	3,974	**2,066**	1,977
Total revenues from contracts with customers	**7,993**	9,085	**3,437**	4,503
Intersegment revenues eliminated on consolidation	**123**	77	**51**	40
Total segment revenues	**$8,116**	$9,162	**$3,488**	$4,543
Revenue recognized at a point in time	**49%**	57%	**41%**	57%
Revenue recognized on fixed-price contracts	**88%**	89%	**86%**	90%
Revenue from the U.S. government[(1)]	**40%**	32%	**46%**	32%

(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, 2020 was $408,650. We expect approximately 27% to be converted to revenue through 2021 and approximately 70% through 2024, with the remainder thereafter. The future periods when backlog is expected to convert to revenue could be impacted if the timing of aircraft deliveries is adjusted due to COVID-19 impacts.

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	
	2020	2019	**2020**	2019
Share-based plans	**($43)**	($36)	**($25)**	($22)
Deferred compensation	**73**	(129)	**(120)**	(27)
Amortization of previously capitalized interest	**(50)**	(45)	**(27)**	(21)
Research and development expense, net	**(116)**	(183)	**(62)**	(105)
Customer financing impairment		(250)		
Litigation		(109)		(109)
Eliminations and other unallocated items	**(515)**	(458)	**(244)**	(214)
Unallocated items, eliminations and other	**($651)**	($1,210)	**($478)**	($498)
Pension FAS/CAS service cost adjustment	**$513**	$549	**$258**	$275
Postretirement FAS/CAS service cost adjustment	**189**	180	**97**	90
FAS/CAS service cost adjustment	**$702**	$729	**$355**	$365

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, net.

Assets

Segment assets are summarized in the table below:

	June 30 2020	December 31 2019
Commercial Airplanes	**$80,160**	$73,995
Defense, Space & Security	**15,407**	15,757
Global Services	**18,438**	18,605
Boeing Capital	**2,116**	2,269
Unallocated items, eliminations and other	**46,751**	22,999
Total	**$162,872**	$133,625

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 managed centrally on behalf of the four principal business segments and intercompany eliminations. From December 31, 2019 to June 30, 2020, assets in BCA increased primarily due to higher inventory balances and assets in Unallocated items, eliminations, and other increased due to higher cash and short-term investment balances from debt issued during the first half of 2020.

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, 2020, the related condensed consolidated statements of operations, comprehensive income, and equity for the three-month and six-month periods ended June 30, 2020 and 2019, and of cash flows for the six-month periods ended June 30, 2020 and 2019, 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, 2019, and the related consolidated statements of operations, comprehensive income, equity, and cash flows for the year then ended (not presented herein); and in our report dated January 31, 2020, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying condensed consolidated statement of financial position as of December 31, 2019, 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 29, 2020

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 COVID-19 pandemic and related government actions, including with respect to our operations and access to suppliers, our liquidity, the health of our customers and suppliers, and future demand for our products and services;

(2) the 737 MAX, including the timing and conditions of 737 MAX regulatory approvals, lower than planned production rates and/or delivery rates, and increased considerations to customers and suppliers;

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

(4) our reliance on our commercial airline customers;

(5) 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;

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

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

(8) our reliance on fixed-price contracts;

(9) our reliance on cost-type contracts;

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

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

(12) changes in accounting estimates;

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

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

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

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

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

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

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

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

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

(22) work stoppages or other labor disruptions;

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

(24) 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

Overview

The global outbreak of COVID-19 coupled with the ongoing grounding of the 737 MAX airplane is having a significant adverse impact on our business and is expected to significantly reduce revenue, earnings and operating cash flow in future quarters. It is also having a significant impact on our liquidity - see Liquidity Matters in Note 1 to our Condensed Consolidated Financial Statements.

The aerospace industry is facing an unprecedented shock to demand for air travel which creates a tremendous challenge for our customers, our business and the entire aerospace manufacturing and services sector. The latest IATA forecast projects full-year passenger traffic to be down 55% this year compared to 2019 as global economic activity slows down due to COVID-19 and governments severely restrict travel to contain the spread of the virus.

Our customers are taking actions to adjust to these new market realities and preserve liquidity. This comes in many forms such as deferrals of advance payments, deferrals of deliveries, reduced spending on services, and, in some cases, cancellations. We face a challenging environment in the near to medium term as airlines adjust to reduced traffic which in turn will lower demand for commercial aerospace products and services. It could also affect the financial viability of some airlines.

We currently expect it will take approximately three years for travel to return to 2019 levels and a few years beyond that for the industry to return to long-term trend growth. To balance the supply and demand given the COVID-19 shock and to preserve our long-term potential and competitiveness, we are reducing the production rates of several of our Commercial Airplanes (BCA) programs. These rate decisions are based on our ongoing assessments of the demand environment. There is significant uncertainty with respect to when commercial air traffic levels will recover, and whether, and at what point, capacity will return to and/or exceed pre-COVID-19 levels. We will closely monitor the key factors that affect backlog and future demand including customers' evolving fleet plans, the wide-body replacement cycle and the cargo market. We will maintain a disciplined rate management process, and make adjustments as appropriate in the future.

At Global Services (BGS), we are seeing a direct impact on our commercial supply chain business as fewer flights and more aircraft retirements result in a decreased demand for our parts and logistics offerings. Additionally, our commercial customers are curtailing discretionary spending, such as modifications and upgrades and focusing on required maintenance. Similar to BCA, we expect a multi-year recovery period for the commercial services business. The demand outlook for our government services business, which in 2019 accounted for just under half of BGS revenue, remains stable.

At Defense, Space & Security (BDS), we continue to see a healthy market with solid demand for our major platforms and programs both domestically and internationally. Despite some near-term production impacts associated with our temporary suspension of operations at various locations, we believe that our portfolio of programs and technologies remains well aligned to our customers' missions and well positioned to address their current needs.

In March and April of 2020, we temporarily suspended operations at multiple locations including the Puget Sound area, South Carolina and Philadelphia. Operations in Puget Sound and Philadelphia resumed during the week of April 20, while operations in South Carolina resumed beginning on May 3. We have implemented procedures to promote employee safety in our facilities, including more frequent and enhanced cleaning and adjusted schedules and work flows to support physical distancing. These actions have resulted, and will continue to result, in increased operating costs. In addition, a number of our suppliers have suspended or otherwise reduced their operations, and we are experiencing some supply chain shortages. Our suppliers are also experiencing liquidity pressures and disruptions to their operations as a result of COVID-19. We also continue to have large numbers of employees working from home. These measures and disruptions have reduced overall productivity and adversely impacted our financial position, results of operations, and cash flows in the first half of 2020. We expect further adverse impacts in future quarters.

Loss From Operations and Core Operating Loss (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**	
	2020	2019	**2020**	2019
Revenues	**$28,715**	$38,668	**$11,807**	$15,751
GAAP				
Loss from operations	**($4,317)**	($1,030)	**($2,964)**	($3,380)
Operating margins	**(15.0)%**	(2.7)%	**(25.1)%**	(21.5)%
Effective income tax rate	**38.4 %**	27.5 %	**30.0 %**	14.2 %
Net loss attributable to Boeing Shareholders	**($3,004)**	($793)	**($2,376)**	($2,942)
Diluted loss per share	**($5.31)**	($1.40)	**($4.20)**	($5.21)
Non-GAAP [(1)]				
Core operating loss	**($5,019)**	($1,759)	**($3,319)**	($3,745)
Core operating margins	**(17.5%)**	(4.5%)	**(28.1%)**	(23.8%)
Core loss per share	**($6.49)**	($2.60)	**($4.79)**	($5.82)

(1) These measures exclude certain components of pension and other postretirement benefit expense. See page 53 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**	
	2020	2019	**2020**	2019
Commercial Airplanes	**$7,838**	$16,544	**$1,633**	$4,722
Defense, Space & Security	**12,630**	13,166	**6,588**	6,579
Global Services	**8,116**	9,162	**3,488**	4,543
Boeing Capital	**134**	141	**69**	75
Unallocated items, eliminations and other	**(3)**	(345)	**29**	(168)
Total	**$28,715**	$38,668	**$11,807**	$15,751

Revenues for the six months ended June 30, 2020 decreased by $9,953 million compared with the same period in 2019 due to lower revenues across all four of our segments. Revenues for each of our segments have been adversely impacted by COVID-19. BCA revenues decreased by $8,706 million due to lower deliveries driven by the impacts of the COVID-19 pandemic and the 737 MAX grounding, offset by lower charges related to estimated potential concessions and other considerations to 737 MAX customers. BDS revenues decreased by $536 million primarily due to the unfavorable impact of cumulative contract catch-up adjustments for the KC-46A Tanker program. BGS revenues decreased by $1,046 million primarily due to lower commercial services revenue driven by impacts of the COVID-19 pandemic. The changes in Unallocated items, eliminations and other primarily reflect the timing of eliminations for intercompany aircraft deliveries, as well as reserves related to cost accounting litigation recorded in 2019. We expect the impacts of the COVID-19 pandemic to continue to significantly impact revenues in future quarters until the commercial airline industry recovers.

Revenues for the three months ended June 30, 2020 decreased by $3,944 million compared with the same period in 2019. BCA revenues decreased by $3,089 million due to lower wide-body and narrow-body

deliveries. Revenues in both periods were adversely impacted by the 737 MAX grounding. This decrease was partially offset by lower charges related to estimated potential concessions and other considerations to 737 MAX customers. BGS revenues decreased by $1,055 million due to lower commercial services revenue driven by impacts of the COVID-19 pandemic. The changes in Unallocated items, eliminations and other primarily reflect reserves related to cost accounting litigation recorded in 2019.

Loss/Earnings From Operations

The following table summarizes (Loss)/earnings from operations:

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2020	2019	**2020**	2019
Commercial Airplanes	**($4,830)**	($3,773)	**($2,762)**	($4,946)
Defense, Space & Security	**409**	1,827	**600**	975
Global Services	**36**	1,340	**(672)**	687
Boeing Capital	**17**	57	**(7)**	37
Segment operating loss	**(4,368)**	(549)	**(2,841)**	(3,247)
Pension FAS/CAS service cost adjustment	**513**	549	**258**	275
Postretirement FAS/CAS service cost adjustment	**189**	180	**97**	90
Unallocated items, eliminations and other	**(651)**	(1,210)	**(478)**	(498)
Loss from operations (GAAP)	**($4,317)**	($1,030)	**($2,964)**	($3,380)
FAS/CAS service cost adjustment *	**(702)**	(729)	**(355)**	(365)
Core operating loss (Non-GAAP) **	**($5,019)**	($1,759)	**($3,319)**	($3,745)

* 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 is a Non-GAAP measure that excludes the FAS/CAS service cost adjustment. See page 53.

Loss from operations for the six months ended June 30, 2020 increased by $3,287 million compared with the same period in 2019 primarily driven by our BCA, BDS and BGS segments. Earnings/loss from operations for each of our segments were adversely impacted by COVID-19. BCA loss from operations of $4,830 million for the six months ended June 30, 2020 primarily reflects the continued absence of MAX deliveries, lower wide-body margins and deliveries resulting from COVID-19, abnormal production costs, severance costs and 737NG frame fitting component repair costs. BCA loss from operations of $3,773 million for the six months ended June 30, 2019 primarily reflects the absence of 737 MAX deliveries and charges of $5,610 million for estimated 737 MAX customer considerations. BDS earnings decreased by $1,418 million, primarily due to charges of $978 million on KC-46A Tanker, a $168 million charge in the first quarter of 2020 on VC-25B, as well as gains on property sales in 2019. For discussion regarding BDS Fixed-Price Development Contracts see Note 10 to our Condensed Consolidated Financial Statements. BGS earnings from operations decreased by $1,304 million primarily due to lower commercial services revenue, and $923 million of charges related to asset impairments and severance costs as a result of the COVID-19 market environment. We expect the impacts of the COVID-19 pandemic to continue to reduce earnings in future quarters until the commercial airline industry recovers.

Loss from operations for the three months ended June 30, 2020 decreased by $416 million compared with the same period in 2019 primarily due to lower losses at BCA, partially offset by decreases in earnings from operations at BDS and BGS. BCA loss from operations decreased $2,184 million, primarily due to lower charges related to estimated potential concessions and other considerations to 737 MAX customers, partially offset by the continued absence of 737 MAX deliveries, lower wide-body margins and deliveries resulting from COVID-19, abnormal production costs, and severance costs. BDS earnings decreased $375 million primarily due to a gain on property sale in 2019 and a charge on the KC-46A Tanker program in 2020. BGS

earnings decreased $1,359 million primarily due to lower commercial services revenue, and $923 million of charges related to asset impairments and severance costs as a result of the COVID-19 market environment.

Core operating loss for the six and three months ended June 30, 2020 increased by $3,260 million and decreased by $426 million compared with the same periods in 2019 primarily due to losses and earnings from operations at BCA, BDS and BGS as described above.

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**	
	2020	2019	**2020**	2019
Share-based plans	**($43)**	($36)	**($25)**	($22)
Deferred compensation	**73**	(129)	**(120)**	(27)
Amortization of previously capitalized interest	**(50)**	(45)	**(27)**	(21)
Research and development expense, net	**(116)**	(183)	**(62)**	(105)
Customer financing impairment		(250)		
Litigation		(109)		(109)
Eliminations and other unallocated items	**(515)**	(458)	**(244)**	(214)
Unallocated items, eliminations and other	**($651)**	($1,210)	**($478)**	($498)

Deferred compensation expense decreased by $202 million and increased by $93 million for the six and three months ended June 30, 2020 compared with the same periods in 2019 primarily driven by changes in our stock price and broad market conditions.

Research and development expense decreased by $67 million and $43 million for the six and three months ended June 30, 2020 compared with the same periods in 2019 primarily due to decreased spending by Boeing NeXt on product development.

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

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 Loss from operations were as follows:

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
Pension Plans	**2020**	2019	**2020**	2019
Allocated to business segments	**($514)**	($707)	**($259)**	($355)
Pension FAS/CAS service cost adjustment	**513**	549	**258**	275
Net periodic benefit cost included in Loss from operations	**($1)**	($158)	**($1)**	($80)

The pension FAS/CAS service cost adjustment recognized in earnings/loss in 2020 is largely consistent with the same periods in the prior year. The decrease in net periodic benefit costs included in Loss from operations

in 2020 was primarily due to lower service costs reflecting the transition of employees to defined contribution retirement savings plans.

For discussion related to Postretirement Plans, see Note 13 to our Condensed Consolidated Financial Statements.

Other Earnings Items

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2020	2019	**2020**	2019
Loss from operations	**($4,317)**	($1,030)	**($2,964)**	($3,380)
Other income, net	**206**	213	**94**	107
Interest and debt expense	**(815)**	(277)	**(553)**	(154)
Loss before income taxes	**(4,926)**	(1,094)	**(3,423)**	(3,427)
Income tax benefit	**1,890**	301	**1,028**	485
Net loss from continuing operations	**(3,036)**	(793)	**(2,395)**	(2,942)
Less: Net loss attributable to noncontrolling interest	**(32)**		**(19)**	
Net loss attributable to Boeing Shareholders	**($3,004)**	($793)	**($2,376)**	($2,942)

Other income, net decreased by $7 million and $13 million during the six and three months ended June 30, 2020, primarily due to higher foreign exchange losses and lower non-operating pension income, partially offset by lower non-operating postretirement expense. Non-operating postretirement expense was $27 million and $14 million during the six and three months ended June 30, 2020 compared with $53 million and $26 million during the same periods in 2019.

Higher Interest and debt expense for the six and three months ended June 30, 2020 is a result of higher debt balances.

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**		
	2020	2019	Change	**2020**	2019	Change
Cost of sales	**$29,746**	$36,455	($6,709)	**$12,978**	$17,810	($4,832)
Cost of sales as a % of Revenues	**103.6%**	94.3%	9.3%	**109.9%**	113.1%	(3.2)%

Cost of sales for the six and three months ended June 30, 2020 decreased by $6,709 million, or 18% and by $4,832 million, or 27% compared with the same periods in 2019, primarily due to lower revenue, partially offset by COVID-19 related charges at BCA, BDS, and BGS and abnormal production costs related to 737

MAX in 2020. Cost of sales as a percentage of Revenues increased during the six months ended June 30, 2020 compared with the same period in 2019 due to the impacts of the 737 MAX grounding and COVID-19. Cost of sales as a percentage of Revenues decreased during the three months ended June 30, 2020 compared with the same period in 2019 primarily due to the second quarter 2019 charge for the 737 MAX grounding, partially offset by the second quarter 2020 impacts of the 737 MAX grounding and COVID-19.

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**	
	2020	2019	**2020**	2019
Commercial Airplanes	**$786**	$1,062	**$361**	$498
Defense, Space & Security	**330**	374	**167**	190
Global Services	**65**	73	**35**	33
Other	**116**	183	**62**	105
Total	**$1,297**	$1,692	**$625**	$826

Research and development expense decreased by $395 million and $201 million during the six and three months ended June 30, 2020 compared to the same periods in 2019, primarily due to lower spending on 777X and product development.

Backlog

(Dollars in millions)	**June 30 2020**	December 31 2019
Commercial Airplanes	**$325,674**	$376,593
Defense, Space & Security	**64,286**	63,691
Global Services	**18,168**	22,902
Unallocated items, eliminations and other	**522**	217
Total Backlog	**$408,650**	$463,403
Contractual backlog	**$385,389**	$436,473
Unobligated backlog	**23,261**	26,930
Total Backlog	**$408,650**	$463,403

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, 2020 was primarily due to aircraft order cancellations, a reduction for orders that in our assessment no longer meet the accounting requirements of ASC 606 for inclusion in backlog, changes in projected price escalation and deliveries in excess of new orders. We are experiencing fewer new 737 MAX orders than we were receiving prior to the grounding. If 737 MAX aircraft remain grounded for an extended period of time, we may experience additional reductions to backlog and/or significant order cancellations. Additionally, we may experience fewer new orders and increased cancellations across all of our commercial airplane programs as a result of the COVID-19 pandemic and associated impacts on demand.

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, 2020 was primarily due to reclassifications to contractual backlog related to BGS and BDS contracts.

Additional Considerations

Global Trade The global economy is currently experiencing significant adverse impacts due to the COVID-19 pandemic, including a decline in overall trade. There is a great deal of uncertainty regarding the duration, scale, and localization of these impacts to the global economy and governments are enacting a wide range

of responses to mitigate the unfolding economic impacts. We are closely monitoring the current impact and potential future economic consequences of COVID-19 to the global economy, the aerospace sector, and our Company. These adverse economic impacts have resulted in fewer orders than previously anticipated for our commercial aircraft.

In addition, we continually monitor the global trade environment for changes in tariffs, trade agreements, sanctions or other potential geopolitical economic developments that may impact the Company.

Beginning in June 2018, the U.S. Government has imposed 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. Implementation of the U.S./Mexico/Canada Free Trade Agreement (USMCA) will also result in lower tariffs. We continue to monitor the potential for any extra costs that may result from the remaining global tariffs.

Since 2018, the U.S. and China imposed 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. The U.S. and China Phase I agreement in January 2020 is a positive development for overall trade with China. Negotiations to resolve remaining trade issues continue. Recently, the U.S.-China relationship has become more strained. We are closely monitoring developments for potential adverse impacts to the Company.

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

See Overview to Management's Discussion and Analysis of Financial Condition and Results of Operations for a discussion of the impacts of COVID-19 on the airline industry environment.

Results of Operations

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2020	2019	**2020**	2019
Revenues	**$7,838**	$16,544	**$1,633**	$4,722
Loss from operations	**($4,830)**	($3,773)	**($2,762)**	($4,946)
Operating margins	**(61.6)%**	(22.8)%	**(169.1)%**	(104.7)%

Revenues

Revenues for the six months ended June 30, 2020 decreased by $8,706 million compared with the same period in 2019 due to lower deliveries driven by the impacts of COVID-19 and the 737 MAX grounding. This was offset by lower charges related to estimated potential concessions and other considerations to 737 MAX customers of $521 million in 2020 as compared with $5,610 million for the same period in 2019.

Revenues for the three months ended June 30, 2020 decreased by $3,089 million compared with the same period in 2019 due to lower wide-body and narrow-body deliveries. Revenues in both periods were adversely impacted by the 737 MAX grounding. This revenue decrease from lower deliveries was partially offset by lower charges related to estimated potential concessions and other considerations to 737 MAX customers of $551 million in the second quarter of 2020 compared to $5,610 million in the second quarter of 2019.

The 737 MAX grounding will continue to have a significant impact on future revenues until deliveries resume, and COVID-19 will continue to have a significant impact on future revenues until the commercial airline industry recovers.

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

	737	*	747	767	*	777	†	787	Total
Deliveries during the first six months of 2020	9	(7)	1	14	(6)	10		36	70
Deliveries during the first six months of 2019	113	(10)	4	22	(14)	22	(1)	78	239
Deliveries during the second quarter of 2020	4	(4)	1	4	(1)	4		7	20
Deliveries during the second quarter of 2019	24	(6)	2	10	(6)	12		42	90
Cumulative deliveries as of 6/30/2020	7,448		1,556	1,190		1,637		975	
Cumulative deliveries as of 12/31/2019	7,439		1,555	1,176		1,627		939	

* Intercompany deliveries identified by parentheses.

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

Loss From Operations

The loss from operations for the six months ended June 30, 2020 of $4,830 million increased $1,057 million compared with the same period in 2019. The 2020 loss reflects the continued absence of 737 MAX deliveries, lower wide-body deliveries and margins resulting from COVID-19, $1,509 million of abnormal production costs related to 737 MAX, $521 million of 737 MAX customer considerations, $270 million of abnormal production costs from the temporary suspension of operations in response to COVID-19, $336 million related to 737NG frame fitting component repair costs, and $468 million of severance costs. Lower 787 margins reflecting a reduction in the accounting quantity in the first quarter of 2020 and lower production rates also contributed to lower earnings. The 2019 loss primarily reflects the absence of 737 MAX deliveries in the second quarter of 2019 and charges of $5,610 million for estimated 737 MAX customer considerations.

The loss from operations of $2,762 million for the three months ended June 30, 2020 is $2,184 million lower compared with the same period in 2019. The losses in both periods reflect the continued absence of MAX deliveries. The 2019 loss was also driven by charges of $5,610 million for estimated 737 MAX customer considerations. The 2020 loss was driven by lower wide-body deliveries and lower program margins due to COVID-19 impacts, $712 million of abnormal production costs related to 737 MAX, $551 million of charges for 737 MAX customer considerations, $468 million of severance costs and $133 million of abnormal production costs from the temporary suspension of operations in response to COVID-19.

The 737 MAX grounding and COVID-19 will continue to have a significant adverse impact on future earnings and margins until 737 MAX and wide-body deliveries return to historic levels.

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 Boeing Capital (BCC)

orders. A number of our customers may have contractual remedies, including rights to reject individual airplane deliveries if the actual delivery date is significantly later than the contractual delivery date. 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 $376,593 million as of December 31, 2019 to $325,674 million at June 30, 2020 reflecting aircraft order cancellations, a reduction for orders that in our assessment no longer meet the accounting requirements of ASC 606 for inclusion in backlog, changes in projected price escalation and deliveries in excess of new orders. Aircraft order cancellations during the six months ended June 30, 2020 totaled $19,755 million and primarily relate to 737 MAX aircraft. The ASC 606 adjustments totaled $23,906 million and primarily relate to 737 MAX aircraft. The ASC 606 adjustments include aircraft orders where a customer controlled contingency now exists, as well as orders where we can no longer assert that the customer is committed to perform or that it is probable that the customer will pay the full amount of consideration when it is due. If 737 MAX aircraft remain grounded for an extended period of time, we may experience additional reductions to backlog and/or significant order cancellations. Additionally, we may continue to experience fewer new orders and increased cancellations across all of our commercial airplane programs as a result the COVID-19 pandemic.

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 6/30/2020	**737**	**747***	**767**	**777**	**777X**	**787**	†
Program accounting quantities	**10,000**	**1,574**	**1,207**	**1,690**	**	**1,500**	
Undelivered units under firm orders	**3,595**	**12**	**89**	**46**	**309**	**501**	(27)
Cumulative firm orders	**11,043**	**1,568**	**1,279**	**1,683**	**309**	**1,476**	

As of 12/31/2019	737	747	767	777	777X	787	†
Program accounting quantities	10,400	1,574	1,195	1,690	**	1,600	
Undelivered units under firm orders	4,398	17	94	68	309	520	(29)
Cumulative firm orders	11,837	1,572	1,270	1,695	309	1,459	

† Aircraft ordered by BCC are identified in parentheses.

* At June 30, 2020, 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 We reduced the program accounting quantity from 10,400 at December 31, 2019 to 10,000 at March 31, 2020. This reflects a slower than previously planned production rate ramp-up caused by commercial airline industry uncertainty due to the impact of COVID-19. See further discussion of the 737 MAX Grounding and COVID-19 Impacts and Product Warranties in Note 10 to our Condensed Consolidated Financial Statements.

747 Program We are currently producing at a rate of 0.5 aircraft per month. We will complete production of the 747 in 2022. We believe that ending production of the 747 will not have a material impact on our financial position, results of operations or cash flows.

767 Program The accounting quantity for the 767 program increased by 12 units during the second quarter of 2020 due to the program's normal progress of obtaining additional orders and delivering airplanes. The 767 assembly line includes the commercial program and a derivative to support the KC-46A tanker program. We are currently producing at a rate of 3 aircraft per month.

777 Program In 2013, we launched the 777X, which features a new composite wing, new engines and folding wing-tips. We have experienced issues in engine design and development on the 777X. The first flight of the 777X was completed on January 25, 2020, and first delivery is now targeted for 2022. The 777 and 777X programs have a combined production rate of approximately 5 per month gradually reducing to 2 per month in 2021. We expect to deliver at an average rate of approximately 2.5 per month in 2020.

Market uncertainties driven primarily by the impacts of COVID-19 are resulting in lower planned production rates and creating significant pressure on the 777X program's revenue and cost estimates. Based on our assessment of the probable range of initial accounting quantities, the 777X does not have a reach-forward loss at June 30, 2020. The level of profitability on the 777X program will be subject to a number of factors. These factors include continued market uncertainty, the impacts of COVID-19 on our productivity as well as impacts on our supply chain and customers, production rate adjustments for other commercial aircraft programs, and potential risks associated with the testing program and the timing of aircraft certification. One or more of these factors could result in a reach-forward loss on the 777X program in future periods.

787 Program

During the second quarter of 2020, we experienced significant reductions in deliveries due to the impacts of COVID-19 on our customers as well as travel restrictions and the temporary suspension of production operations in the Puget Sound area and South Carolina. Pre-COVID-19, we were producing at a rate of 14 per month and had planned to adjust the 787 production rate to 12 per month in late 2020 and to 10 per month in early 2021. Due to the impacts of COVID-19 on customer demand, we are currently producing at a rate of 10 per month and plan to reduce to 6 per month in 2021. As a result of the planned production rate changes, we reduced the accounting quantity for the 787 program by 100 units during the first quarter of 2020. The 787 program has near breakeven gross margins due to the reductions in the production rates and the reduction in the program accounting quantity. If we are required to further reduce production rates or experience other factors that could result in lower margins, the program could record a reach-forward loss in future periods.

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 claims or 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 2019 raised the Budget Control Act limits on federal discretionary defense and non-defense spending for fiscal years 2020 and 2021 (FY20 and FY21), reducing budget uncertainty and the risk of sequestration. The consolidated appropriations acts for FY20, enacted in December 2019, provided FY20 appropriations for government departments and agencies, including the United States Department of Defense (U.S. DoD), the National Aeronautics and Space Administration (NASA) and the Federal Aviation Administration. In February 2020, the U.S. administration submitted its request for $740.5 billion in base national defense spending for FY21, congruent with the amended spending limit.

The enacted FY20 appropriations included funding for Boeing's major programs, such as the F/A-18 Super Hornet, F-15EX, CH-47 Chinook, AH-64 Apache, V-22 Osprey, KC-46A Tanker, P-8 Poseidon and Space Launch System. However, there continues to be uncertainty with respect to future program-level appropriations for the U.S. DoD and other government agencies, including NASA. Future budget cuts or investment priority changes, including changes associated with the authorizations and appropriations process, 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.

Results of Operations

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2020	2019	**2020**	2019
Revenues	**$12,630**	$13,166	**$6,588**	$6,579
Earnings from operations	**$409**	$1,827	**$600**	$975
Operating margins	**3.2%**	13.9%	**9.1%**	14.8%

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**	
	2020	2019	**2020**	2019
F/A-18 Models	**9**	10	**4**	3
F-15 Models	**3**	5	**3**	1
CH-47 Chinook (New)	**15**	7	**6**	
CH-47 Chinook (Renewed)	**1**	9		5
AH-64 Apache (New)	**11**	10	**9**	4
AH-64 Apache (Remanufactured)	**32**	35	**18**	13
P-8 Models	**6**	8	**3**	5
KC-46 Tanker	**6**	12	**1**	5
Total	**83**	96	**44**	36

Revenues

BDS revenues for the six months ended June 30, 2020 decreased by $536 million compared with the same period in 2019, primarily due to the unfavorable impact of cumulative contract catch-up adjustments for the six months ended June 30, 2020, which was $445 million higher than the comparable period in the prior year. The decrease was also driven by lower volume in KC-46A Tanker and P-8 commercial derivative programs due to COVID-19 disruptions, which were largely offset by higher volume in fighter and surveillance aircraft.

BDS revenues for the three months ended June 30, 2020 increased by $9 million compared with the same period in 2019. Lower volume from COVID-19 disruption in KC-46A Tanker and P-8 commercial derivative programs was more than offset by higher F/A-18 and Space Launch System volume and the impact from cumulative contract catch-up adjustments to revenue. The cumulative contract catch-up adjustments for the three months ended June 30, 2020 was $85 million more favorable than the comparable period in the prior year reflecting less unfavorable adjustments compared to the prior period.

Earnings From Operations

BDS earnings from operations for the six months ended June 30, 2020 decreased by $1,418 million compared with the same period in 2019, primarily due to the unfavorable impact of cumulative contract catch-up adjustments for the six months ended June 30, 2020 which were $860 million higher than the prior year primarily due to charges of $978 million on KC-46A Tanker, a $168 million charge in the first quarter of 2020 on VC-25B, as well as gains on property sales in 2019. The KC-46A Tanker reach-forward loss in the first quarter of 2020 reflects $551 million of costs associated with the agreement signed in April 2020 with the U.S. Air Force to develop and integrate a new Remote Vision System, and the remaining costs reflect productivity inefficiencies and COVID-19 related factory disruption. The reach-forward loss on VC-25B was associated with engineering inefficiencies from the COVID-19 environment. We believe these inefficiencies will result in staffing challenges, schedule inefficiencies, and higher costs in the upcoming phases of the program.

BDS earnings from operations for the three months ended June 30, 2020 decreased by $375 million compared with the same period in 2019, due to a gain on property sale in 2019, an increase to the reach-forward loss on KC-46A Tanker of $151 million in 2020 primarily driven by additional fixed cost allocation resulting from lower commercial airplane production volume due to COVID-19, and revenue mix changes. These were partially offset by $84 million of favorable cumulative contract catch-up adjustments for the three months ended June 30, 2020 compared to the prior period due to improved performance.

BDS earnings from operations includes equity earnings of $35 million and equity loss of $2 million for the six and three months ended June 30, 2020 compared to $65 million and $12 million for the same periods in 2019. The year over year variance reflect lower earnings from our United Launch Alliance joint venture.

Backlog

Total backlog of $64,286 million at June 30, 2020 was largely unchanged from December 31, 2019.

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-price proposals for new programs. Examples of significant fixed-price development programs include Commercial Crew, KC-46A Tanker, MQ-25, T-7A Red Hawk, VC-25B 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. 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.

Global Services

Results of Operations

(Dollars in millions)	**Six months ended June 30**		**Three months ended June 30**	
	2020	2019	**2020**	2019
Revenues	**$8,116**	$9,162	**$3,488**	$4,543
Earnings/(loss) from operations	**$36**	$1,340	**($672)**	$687
Operating margins	**0.4%**	14.6%	**(19.3)%**	15.1%

Revenues

BGS revenues for the six and three months ended June 30, 2020 decreased by $1,046 million and $1,055 million compared with the same periods in 2019 primarily due to lower commercial services revenue driven by impacts of the COVID-19 pandemic. These were partially offset by growth in government services revenue. The favorable impact of cumulative contract catch-up adjustments for the six and three months ended June 30, 2020 were $74 million lower and $10 million lower than the comparable periods in the prior year. We expect the impacts of the COVID-19 pandemic to continue to reduce BGS commercial revenues in future quarters until the commercial airline industry environment recovers.

Earnings/Loss From Operations

BGS earnings from operations of $36 million for the six months ended June 30, 2020 was $1,304 million lower than the same period in 2019. Loss from operations for the three months ended June 30, 2020 was $672 million compared with earnings from operations of $687 million in the same period in 2019. The decreases compared with the same periods in 2019 reflect earnings due to lower commercial services revenue, as well as earnings charges in the second quarter of 2020. Second quarter earnings charges included $370 million for higher expected credit losses primarily driven by customer liquidity issues, $237 million of inventory write-downs and $153 million of related impairments of distribution rights primarily driven by airlines' decisions to retire certain aircraft, $99 million of contract termination and facility impairments charges and $64 million for severance costs. These charges reflect the significant impacts of COVID-19 on commercial airline customers' liquidity and demand for certain products as customers' fleet plans evolve to adapt to the sharp reduction in demand for air travel. While the operating losses incurred in the second quarter of 2020 are not necessarily indicative of future quarters, we expect the impacts of the COVID-19 pandemic to continue to reduce future earnings until the commercial airline industry environment recovers.

The favorable impact of cumulative contract catch-up adjustments for the six and three months ended June 30, 2020 were $64 million lower and $22 million lower than the comparable periods in the prior year.

Backlog

BGS backlog decreased from $22,902 million as of December 31, 2019 to $18,168 million at June 30, 2020, primarily due to a reduction for commercial orders that in our assessment no longer meet the accounting requirements of ASC 606 for inclusion in backlog.

Boeing Capital

Results of Operations

(Dollars in millions)	Six months ended June 30		Three months ended June 30	
	2020	2019	**2020**	2019
Revenues	**$134**	$141	**$69**	$75
Earnings/(loss) from operations	**$17**	$57	**($7)**	$37
Operating margins	**13%**	40%	**(10)%**	49%

Revenues

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, 2020 decreased compared with the same periods in 2019 primarily due to lower interest income.

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/loss from operations for the six and three months ended June 30, 2020 decreased compared with the same periods in 2019 primarily due to lower interest income and higher asset impairment expense along with higher provision expense.

Financial Position

The following table presents selected financial data for BCC:

(Dollars in millions)	**June 30 2020**	December 31 2019
Customer financing and investment portfolio, net	**$2,099**	$2,251
Other assets, primarily cash and short-term investments	**642**	535
Total assets	**$2,741**	$2,786
Other liabilities, primarily deferred income taxes	**$390**	$432
Debt, including intercompany loans	**1,942**	1,960
Equity	**409**	394
Total liabilities and equity	**$2,741**	$2,786
Debt-to-equity ratio	**4.7-to-1**	5.0-to-1

BCC's customer financing and investment portfolio at June 30, 2020 decreased from December 31, 2019 primarily due to $171 million of note payoffs and portfolio run-off, 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.

Aircraft subject to leases with a carrying value of approximately $65 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**	
	2020	2019
Net loss	**($3,036)**	($793)
Non-cash items	**2,230**	1,335
Changes in working capital	**(8,776)**	1,656
Net cash (used)/provided by operating activities	**(9,582)**	2,198
Net cash used by investing activities	**(12,686)**	(853)
Net cash provided by financing activities	**32,742**	96
Effect of exchange rate changes on cash and cash equivalents	**(11)**	(2)
Net increase in cash & cash equivalents, including restricted	**10,463**	1,439
Cash & cash equivalents, including restricted, at beginning of year	**9,571**	7,813
Cash & cash equivalents, including restricted, at end of period	**$20,034**	$9,252

Operating Activities Net cash used by operating activities was $9.6 billion during the six months ended June 30, 2020, compared with cash provided of $2.2 billion during the same period in 2019 primarily driven by changes in working capital. The changes in working capital in 2020 are primarily driven by increases in commercial airplane inventory largely reflecting lower deliveries of wide-body aircraft and the continued 737 MAX grounding. The changes in working capital in 2020 also reflect lower accounts payable in 2020 due to reductions in commercial purchases from suppliers. Compensation payments to 737 MAX customers totaled $1.2 billion during the first half of 2020. In the second quarter of 2019 we recorded an earnings charge and recognized a liability of $5.6 billion for customer considerations but did not make any compensation payments. The impacts of the COVID-19 pandemic and the 737 MAX grounding are expected to continue to have a significant negative impact on our operating cash flows during 2020.

Payables to suppliers who elected to participate in supply chain financing programs declined by $1.3 billion for the six months ended June 30, 2020 and increased by $1.8 billion for the same period in the prior year. Supply chain financing is not material to our overall liquidity. The decline for the six months ended June 30, 2020 was primarily due to reductions in commercial purchases from suppliers and not due to any changes in the availability of supply chain financing. The increase for the six months ended June 30, 2019 reflects a combination of higher purchases, an extension of payment terms with certain suppliers and increased utilization of our supply chain financing programs.

Investing Activities Cash used by investing activities was $12.7 billion during the six months ended June 30, 2020, compared with $0.9 billion during the same period in 2019, primarily due to $12.3 billion of higher net contributions to investments. In the six months ended June 30, 2020 and 2019, capital expenditures totaled $0.8 billion and $0.9 billion. We now expect capital expenditures in 2020 to be lower than 2019.

Financing Activities Cash provided by financing activities was $32.7 billion during the six months ended June 30, 2020 compared with cash used of $0.1 billion during the same period in 2019, primarily reflecting higher net borrowings and lower share repurchases. During the six months ended June 30, 2020, new borrowings net of repayments were $34 billion compared with $5.2 billion in the same period in 2019, primarily due to $25 billion of fixed rate senior notes issued in the second quarter of 2020 and $13.8 billion of new borrowings under a two-year delayed draw term loan agreement entered into in the first quarter of 2020. For further discussion see Liquidity Matters in Note 1 to our Condensed Consolidated Financial Statements.

As of June 30, 2020, the total debt balance was $61.4 billion up from $27.3 billion at December 31, 2019. At June 30, 2020, $2.9 billion of debt 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, 2020 we did not repurchase any shares through our open market share repurchase program compared to share repurchases of $2.7 billion in the same period in 2019. Share repurchases under this plan had been suspended since April 2019. In March 2020, the Board of Directors terminated its prior authorization to repurchase shares of the Company's outstanding common stock.

During the six months ended June 30, 2020 we paid dividends of $1.2 billion compared with $2.3 billion in the same period in 2019. In March 2020, the Company announced that our dividend will be suspended until further notice.

Capital Resources The impacts of the COVID-19 pandemic and 737 MAX grounding are having a significant negative impact on our liquidity and ongoing operations and creating significant uncertainty. For further discussion see Liquidity Matters in Note 1 to our Condensed Consolidated Financial Statements.

Currently, we have $9.6 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.

Any future borrowings may affect our credit ratings and are subject to various debt covenants. At June 30, 2020, 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.

Financing commitments totaled $12.8 billion and $13.4 billion at June 30, 2020 and December 31, 2019. 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.

For discussion regarding Embraer see Note 18 to our Condensed Consolidated Financial Statements.

Off-Balance Sheet Arrangements

We are a party to certain off-balance sheet arrangements including certain guarantees. For discussion of these arrangements, see Note 11 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 18 to our Condensed Consolidated Financial Statements.

Environmental Remediation We are involved with various environmental remediation activities and have recorded a liability of $560 million at June 30, 2020. For additional information, see Note 10 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, 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 adjustments recognized in Loss from operations were benefits of $513 million and $258 million for the six and three months ended June 30, 2020, compared with benefits of $549 million and $275 million during the same periods in 2019. The non-operating pension expenses included in Other income, net were benefits of $171 million and $84 million for the six and three months ended June 30, 2020, compared with benefits of $187 million and $94 million for the same periods in 2019. The benefits in 2020 reflect expected returns in excess of interest cost and amortization of actuarial losses.

For further discussion of pension and other postretirement costs see the Management's Discussion and Analysis on page 40 of this Form 10-Q and on page 48 of our 2019 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 costs 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 loss, core operating margin and core loss per share with the most directly comparable GAAP financial measures of loss from operations, operating margins and diluted loss per share.

(Dollars in millions, except per share data)	**Six months ended June 30**		**Three months ended June 30**	
	2020	2019	**2020**	2019
Revenues	**$28,715**	$38,668	**$11,807**	$15,751
Loss from operations, as reported	**($4,317)**	($1,030)	**($2,964)**	($3,380)
Operating margins	**(15.0)%**	(2.7)%	**(25.1)%**	(21.5)%
Pension FAS/CAS service cost adjustment [(1)]	**($513)**	($549)	**($258)**	($275)
Postretirement FAS/CAS service cost adjustment [(1)]	**(189)**	(180)	**(97)**	(90)
FAS/CAS service cost adjustment [(1)]	**($702)**	($729)	**($355)**	($365)
Core operating loss (non-GAAP)	**($5,019)**	($1,759)	**($3,319)**	($3,745)
Core operating margins (non-GAAP)	**(17.5)%**	(4.5)%	**(28.1)%**	(23.8)%
Diluted loss per share, as reported	**($5.31)**	($1.40)	**($4.20)**	($5.21)
Pension FAS/CAS service cost adjustment [(1)]	**(0.91)**	(0.97)	**(0.46)**	(0.49)
Postretirement FAS/CAS service cost adjustment [(1)]	**(0.33)**	(0.32)	**(0.17)**	(0.16)
Non-operating pension expense [(2)]	**(0.30)**	(0.32)	**(0.14)**	(0.17)
Non-operating postretirement expense [(2)]	**0.05**	0.09	**0.02**	0.05
Provision for deferred income taxes on adjustments [(3)]	**0.31**	0.32	**0.16**	0.16
Core loss per share (non-GAAP)	**($6.49)**	($2.60)	**($4.79)**	($5.82)
Weighted average diluted shares (in millions)	**566.1**	566.6	**566.4**	565.3

(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 loss (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, net and are excluded from Core loss per share (non-GAAP).

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

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We have financial instruments that are subject to interest rate risk, principally fixed- and floating-rate debt obligations, and customer financing assets and liabilities. The investors in our fixed-rate debt obligations do not generally have the right to demand we pay off these obligations prior to maturity. Therefore, exposure to interest rate risk is not believed to be material for our fixed-rate debt. In the first quarter of 2020, we entered into a $13.8 billion two-year delayed draw floating-rate term loan credit agreement. An increase or decrease of 100 basis points in interest rates on this floating-rate debt would increase or decrease our pre-tax earnings by $138 million over the next 12 months. Historically, we have not experienced material gains or losses on our customer financing assets and liabilities due to interest rate changes.

There have been no significant changes to our foreign currency exchange rate or commodity price risk since December 31, 2019.

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, 2020 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 2020 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 18 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, 2019.

We face significant risks related to the spread of the novel coronavirus ("COVID-19") and the recent developments surrounding the global pandemic have had, and will continue to have, significant effects on our business, financial condition, results of operations, and cash flows. We also face significant risks related to the global economic downturn and severe reduction in commercial air traffic caused by the pandemic. These risks include materially reduced demand for our products and services, increased instability in our supply chain, and challenges to the ongoing viability of some of our customers. We may face similar risks in connection with any future public health crises, including any resurgence in the spread of COVID-19.

The COVID-19 pandemic has subjected our business, operations, financial performance, cash flows and financial condition to a number of risks, including, but not limited to those discussed below.

Operations-related risks: As a result of the COVID-19 pandemic, we are facing increased operational challenges from the need to protect employee health and safety. These challenges have included, and may in the future include production site shutdowns, and workplace disruptions and restrictions on the movement of people, raw materials and goods, both at our own facilities and at our customers and suppliers.

For example, during the second quarter, we temporarily suspended operations in Puget Sound, South Carolina, and Philadelphia, as well as at several other key production sites. We had not previously experienced a complete suspension of our operations at these production sites. While we have resumed operations at each of our key production sites we cannot predict where further production disruptions will be required or what the ongoing impact of COVID-19-related operating restrictions will be. For example, we continue to experience additional operating costs due to social distancing requirements and other factors related to COVID-19 restrictions. We cannot predict the impact that future production disruptions may have on our business, operations, financial performance and financial condition. We consult regularly with relevant federal, state, and municipal health authorities regarding the COVID-19 pandemic, and we may be required to impose additional operational restrictions and/or suspend operations at key production sites based on their recommendations and/or workplace disruptions caused by COVID-19.

Many of our suppliers also were required to suspend operations during the second quarter, and they may experience additional disruptions in the coming months. Any such disruptions could have severe adverse impacts on our production costs delivery schedule and/or ability to meet customer commitments.

Any prolonged suspension of operations or delayed recovery in our operations, and/or any similar delay with respect to resumption of operations by one or more of our key suppliers, or the failure of any of our key suppliers, would result in further challenges to our business, leading to a further material adverse effect on our business, financial condition, results of operations, and cash flows.

Liquidity risks: The COVID-19 pandemic has also had a significant impact on our liquidity and overall debt levels. During the six months ended June 30, 2020, net cash used by operating activities was $9.6 billion. At June 30, 2020, cash and short-term investments totaled $32.4 billion. Our debt balance totaled $61.4 billion at June 30, 2020, up from $27.3 billion at December 31, 2019. We expect negative operating cash flows in future quarters until deliveries resume and ramp up, and if the pace and scope of the recovery are worse than we currently contemplate, we may need to obtain additional financing in order to fund our operations and obligations. If we were to need to obtain additional financing, uncertainty related to COVID-19

and its impact on us and the aerospace industry could limit our access to credit markets and we may have difficulty obtaining financing on terms acceptable to us or at all. In addition, certain of our customers may also be unable to make timely payments to us. Factors that could limit our access to additional liquidity include disruptions in the global capital markets and/or additional declines in our financial performance, outlook or credit ratings. The occurrence of any or all of these events would be expected to adversely affect our ability to fund our operations and contractual commitments. In addition, downgrades in our credit ratings could adversely affect our cost of funds and related margins, liquidity, competitive position and access to capital markets, and a significant downgrade could have an adverse impact on our businesses.

Customer-related risks: Commercial air traffic has fallen dramatically due to the COVID-19 pandemic. While this trend has impacted passenger traffic most severely, near-term cargo traffic has also fallen significantly due to the global economic downturn and the reduction in cargo capacity on passenger airplanes. Most airlines have significantly reduced their capacity, and many could implement further reductions in the near future. Many airlines are also implementing significant reductions in staffing. These capacity changes are causing, and are expected to continue to cause, negative impacts to our customers' revenue, earnings, and cash flow, and in some cases may threaten the future viability of some of our customers, potentially causing defaults within our customer financing portfolio, which was $2.2 billion as of June 30, 2020 and/or requiring us to remarket aircraft that have already been produced and/or are currently in backlog. If 737 MAX aircraft remain grounded for an extended period of time, we may experience additional reductions to backlog and/or significant order cancellations. Additionally, we may experience fewer new orders and increased cancellations across all of our commercial airplane programs as a result of the COVID-19 pandemic and associated impacts on demand. Our customers may also lack sufficient liquidity to purchase new aircraft due to impacts from the pandemic. We are also observing a significant increase in the number of requests for payment deferrals, contract modifications, lease restructurings and similar actions, and these trends may lead to additional charges, impairments and other adverse financial impacts in our business over time. In addition, to the extent that customers have valid rights to cancel undelivered aircraft, we may be required to refund pre-delivery payments, putting additional constraints on our liquidity.

In addition to the near-term impact, there is risk that the industry implements longer-term strategies involving reduced capacity, shifting route patterns, and mitigation strategies related to impacts from COVID-19 and the risk of future public health crises. In addition, airlines may experience reduced demand due to reluctance by the flying public to travel due to travel restrictions and/or social distancing requirements.

As a result, there is significant uncertainty with respect to when commercial air traffic levels will begin to recover, and whether and at what point capacity will return to and/or exceed pre-COVID-19 levels. The COVID-19 pandemic also has increased, and its aftermath is also expected to continue to increase, uncertainty with respect to global trade volumes, putting significant negative pressure on cargo traffic. Any of these factors would have a significant impact on the demand for both single-aisle and wide-body commercial aircraft, as well as for the services we provide to commercial airlines. In addition, a lengthy period of reduced industry-wide demand for commercial aircraft would put additional pressure on our suppliers, resulting in increased procurement costs and/or additional supply chain disruption. To the extent that the COVID-19 pandemic or its aftermath further impacts demand for our products and services or impairs the viability of some of our customers and/or suppliers, our financial condition, results of operations, and cash flows could be adversely affected, and those impacts could be material.

Other risks: The magnitude and duration of the global COVID-19 pandemic is uncertain. As the pandemic continues to adversely affect our business and operating and financial results, it also is expected to have the effect of heightening many of the other risks described in the risk factors in our Annual Report on Form 10-K for the year ended December 31, 2019. Further, the COVID-19 pandemic may also affect our operating and financial results in a manner that is not presently known to us or that we currently do not expect to present significant risks to our operations or financial results.

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, 2020 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]
4/1/2020 thru 4/30/2020	5,381	$138.98		
5/1/2020 thru 5/31/2020	4,201	140.49		
6/1/2020 thru 6/30/2020	1,761	165.29		
Total	11,343	$143.62		

[1] A total of 9,175 shares were 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 any shares of our common stock in the open market pursuant to our repurchase program. We purchased 2,168 shares in swap transactions.

[2] On March 21, 2020, the Board of Directors terminated its prior authorization to repurchase shares of the Company's outstanding common stock. Share repurchases under this plan had been suspended since April 2019.

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*	Employment Agreement between Boeing Canada Operations LTD and Susan Doniz
10.2*	Form of International Notice of Terms of Supplemental Restricted Stock Units
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.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	The cover page for the Company’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2020, has been formatted in Inline XBRL.

* 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 29, 2020
(Date)

/s/ Robert E. Verbeck
Robert E. Verbeck
Senior Vice President and Controller

Exhibit 10.1

EMPLOYMENT AGREEMENT

BETWEEN:

BOEING CANADA OPERATIONS LTD.
99 Murray Park Road
Winnipeg, Manitoba, Canada, R3J3M6

(the "**Employer**")

AND:

Susan Doniz of
[Address]

(the "**Employee**")

(the Employer and the Employee are hereinafter referred to as the **"Parties"**)

WHEREAS the Employer has offered the Employee the position of Senior Vice President, Information Technology & Data Analytics ("CIO") and the Employee wishes to accept the Employer's offer;

NOW THEREFORE in exchange for the good and valuable consideration as set out herein, the Employee agrees to the terms of employment as set forth in this agreement (the "Agreement"):

1.0 EMPLOYMENT

1.1 Subject to the conditions set forth below, the Employee will commence working in the position of CIO on Saturday, May 2, 2020.

1.2 The Employee represents and warrants to the Employer that the Employee has the required skills, core competencies and experience to perform the duties and exercise the responsibilities required of the CIO for the Employer.

1.3 The Employee's appointment and employment shall be for an indefinite term but subject to termination in accordance with paragraph 4.0.

1.4 The Employee shall report to the President and Chief Executive Officer of The Boeing Company ("**CEO**") and shall keep him fully informed of major initiatives on a timely basis.

1.5 During the term of employment the Employee shall well and faithfully serve and devote herself exclusively to the Employer and shall not, during the term or any subsequent renewal terms, be employed or engaged in any capacity in promoting, representing, undertaking, serving or carrying on any other business, without the prior written permission of the CEO.

1.6 In carrying out her duties and responsibilities, the Employee undertakes to comply with all lawful instructions which she may receive from the CEO.

1.7 The Employee agrees and understands that the effective performance of the Employee's duties requires the highest level of integrity and the Employer's complete confidence in the Employee's relationship with other employees of the Employer and with all persons dealt with by the Employee in the course of her employment. The Employee is required to ensure that she conducts herself in a professional, businesslike manner, appropriate to the Employer's image at all times.

1.8 The Employee acknowledges and agrees to familiarize herself with the business of the Employer, and to comply with all of the Employer's policies and procedures as adopted and amended from time to time in the complete and absolute discretion of the Employer.

2.0 **REMUNERATION AND BENEFITS**

2.1 The CIO position is an I1C grade in the Executive Compensation Program. As this role is an Elected Officer of The Boeing Company ("**Boeing**"), Employee's employment and terms are subject to approval by the Compensation Committee and the Board of Directors of Boeing. The Board of Directors has approved all actions at this time related to the Employee's employment. In consideration of the Employee's undertaking and performance of the obligations contained in this Agreement, the Employer shall compensate the Employee for her services as follows:

(a) Base Salary: The Employer shall compensate the Employee with a Base Salary of $625,000 USD (converted to $884,875 Canadian Dollars (CAD) based on 1 USD equals 1.4158 CAD conversion) per annum, to be paid in regular installments in accordance with the Employer's usual practices, and subject to required statutory deductions. Salaries are reviewed annually in accordance with the Employer's Compensation plan and salary increases are subject to approval from the Compensation Committee. The Employee understands and acknowledges that as she is a "manager" as that term is defined under applicable provincial employment standards legislation, as amended (the "ESA"), she is not eligible for overtime pay.

(b) Signing Bonus: Employee will receive a cash sign-on payment of $300,000 USD (converted to $424,740 Canadian Dollars based on 1 USD equals 1.4158 CAD conversion), less applicable statutory deductions, within 30 days of Employee's report-to-work date. In addition, the Employee will receive 1,500 Boeing restricted stock units with three-year ratable vesting. The Employee's grant date will coincide with her start date (or the next trading day if Employee's start date is on a weekend) and has been approved by the Compensation Committee of the Boeing Board of Directors. Vesting will be on the first-, second-, and third-year anniversaries of the Employee's date of grant, assuming continued employment through the applicable vesting dates.

(c) Incentive Compensation:

(i) The Employee will be eligible to participate in such annual Employer incentive plans as may be applicable and which provide the opportunity to receive incentive pay as determined by the Employer from time to time. The Employee will have a target annual incentive opportunity of 75% of eligible earnings for the performance period. The annual incentive program rewards previous year performance and will be based on the overall performance of Boeing and an assessment of the Employee's individual performance. Any annual incentive award earned is paid in cash in March following the year in which they are earned; provided that the Employee's annual incentive for 2020 only will pay out at no less than full-year target.

(ii) The Employee will be eligible to participate in such long-term Employer incentive plans as may be applicable and which provide the opportunity to receive incentive pay as determined by the Employer from time to time. The Employee will have a target long-term incentive opportunity of 250% of base salary. The Employee's long-term incentive for 2020 will be pro-rated based on the Employee's report-to-work date.

(iii) The Employee's participation in such annual and long-term Employer incentive plans is subject to the terms of the plans as amended from time to time. Payments under annual incentive plans and awards under long-term incentive plans are entirely at the discretion of the Employer, and the employee will have no legal, acquired or implicit right to such payments, even if they are made over the course of more than one annual period and the Employer has not declared a reservation of rights with regard to each such payment. Except as expressly required by the ESA, no incentive compensation will be paid or awarded or shall be payable following notification of termination of the Employee's employment for any reason during or in respect of any common law or contractual period of notice, and the Employee waives any entitlement thereto. The Employer also reserves the right to amend, modify, replace or discontinue these incentive

plans at any time. Incentive plan payouts will be subject to all deductions required by law, the terms of the incentive plan, and any other applicable deductions.

(d) Benefits: The Employee shall be entitled to participate in the benefit plans of the Employer for which she is eligible, as they may exist or be amended in the discretion of the Employer from time to time. The Employer shall make the benefit plans available to the Employee and, where applicable, the Employer shall pay premiums to an insurance carrier of its choice. All decisions regarding eligibility and coverage shall be made by the insurance carrier; the Employer shall not bear any responsibility or liability in connection with the benefit plans during the employment of the Employee or thereafter. The Employer's obligation to provide benefits shall terminate at the end of the Employee's statutory notice period.

(e) Vacation:

(i) The Employee's annual vacation entitlement shall be 21 days per annum (**"Annual Vacation"**). This is in addition to other holidays normally observed by the Employer, including but not limited to all statutory and observed holidays if any. The Employee's paid vacation entitlement will be adjusted as per the Employer's vacation policy which may be amended from time to time;

(iii) The Employee shall take her Annual Vacation at a time or times mutually agreed upon, provided that not more than two weeks shall be taken at any one time without the prior written permission of the Employer.

(f) Sick Leave:

(i) The Employer offers annual sick leave, should the need arise, which may be taken as per the Employer's sick leave policy, as may be amended from time to time.

(g) DPSP Contribution: The Employee is eligible to participate in the Employer's DPSP as it may be amended from time to time.

3.0 **EMPLOYEE PERFORMANCE AND COMPENSATION REVIEW**

3.1 The Performance and Compensation of the Employee shall be reviewed annually in accordance with the Employer's procedures and policies, as amended from time to time.

4.0 **TERMINATION**

4.1 The Employer may terminate the Employee without Cause at any time by providing Employee with only the minimum amount of notice or pay in lieu of notice, benefit continuation, severance pay, vacation pay and other minimum entitlements (if and as applicable) that are expressly required to be provided to Employee upon such termination pursuant to the ESA. Employee agrees that upon the payment and provision to Employee of all such minimum entitlements as required by the ESA, the Employer shall have satisfied all of its obligations to Employee in relation to the termination of Employee's employment, and Employee shall have no further entitlements in respect thereof from the Employer, whether pursuant to common law or otherwise, except for any amounts which are earned, due and remain unpaid at the time of the termination of Employee's employment.

4.2 Where there is just cause for termination of employment, the Employee will not be entitled to notice or payment in lieu of notice upon the termination of her employment by the Employer. The employment of the Employee shall cease upon receipt of notice that her employment is being terminated for just cause. For the purposes of this Agreement, "just cause" will be defined by the common law.

4.3 The Employee's employment may be terminated by the Employee by providing one month written notice to the Employer. The Employer may waive this notice requirement by written notice.

4.4 The Employee acknowledges and agrees that she shall promptly resign her employment with the Employer upon receipt of a visa for work authorization in the U.S. and the Employee shall commence employment as an at-will employee for Boeing in the U.S. For purposes of the Employee's award of restricted stock units, long-term incentive awards, and

annual incentives, the Employee's resignation of employment with the Employer and commencement of employment with Boeing shall be treated as a transfer of employment.

5.0 **RETURN OF PROPERTY**

5.1 The Employer agrees to reimburse the Employee for expenses incurred by the Employee in accordance with applicable policy up to and including the effective date of termination upon receipt from the Employee of (and the Employee agrees to deliver to the Employer):

(a) any property of the Employer which may be in the possession or control of the Employee; and

(b) the repayment of any sums owed by the Employee to the Employer.

6.0 **CONFIDENTIAL INFORMATION AND PROPERTY**

6.1. The Employee acknowledges and agrees to be bound by the terms of the Intellectual Property and Confidentiality Agreement to be signed by the Employee.

6.2 The Employee acknowledges and agrees that she will not bring any confidential information from her former employer with her. The Employer does not want the Employee to access or use such information while employed by the Employer. The Employer respects the Employees' former employer's rights to its own information and processes and requests that the Employee please take care not to intentionally or inadvertently share such information with the Employer or rely on it in the performance of the Employee's new job duties and responsibilities for the Employer.

6.3 The Employee acknowledges that as the CIO and in any other position the Employee may hold, a relationship of confidence, trust and fiduciary obligation is created between the Employee and the Employer, and the Employee will acquire information about certain matters and things which are confidential the Employer, and which information is the exclusive property of the Employer including:

(a) all information defined as Confidential Information in the Intellectual Property and Confidentiality Agreement;

(b) financial statements, financial books and records, reserve reports and estimates and other related information;

(c) information containing products, pricing, sales and marketing policies, techniques and concepts, including costing information, in respect of products and services provided to, or by the Employee;

(d) lists of present and prospective clients and related information, including names and addresses, borrowing habits and preferences of present and prospective clients of the Employer;

(e) purchasing information, including the names and addresses of present and prospective suppliers of the Employer and prices charged by such suppliers;

(f) computer systems, computer programs, data, software, system documentation, designs, manuals, databases;

(g) trade secrets; and

(h) any other materials or information related to the personnel, business operations, financing or activities of the Employer which are not generally known to others engaged in similar businesses or activities,

(collectively, the **"Confidential Information"**).

6.4 The Employee acknowledges and agrees that the Confidential Information could be used to the detriment of the Employer. Accordingly, the Employee agrees and undertakes not to disclose the Confidential Information to any third party either during the term of her employment, except as may be necessary in the proper discharge of her employment, or after the term of her employment, however caused, except with the written permission of the Employer.

6.5 The Employee understands and agrees that all items of every and any nature or kind created by the Employee pursuant to the Employee's employment under this Agreement or furnished by the Employer to the Employee, and all equipment, vehicles, credit cards, books, records, reports, files, manuals and any other documents and confidential information shall remain and be considered the exclusive property of the Employer at all times, and shall be returned to the Employer in good condition promptly on the termination of this Agreement, for any reason.

7.0 **NON-SOLICITATION**

7.1 The Employee agrees that, except with the prior written consent of the Employer, during the period of the Employee's employment with the Employer and for the one (1) year period thereafter, the Employee shall not directly or indirectly solicit or attempt to solicit the business or potential business away from the Employer for any purpose or seek to induce the other employees or contractors to leave the employment or engagement of the Employer. For purposes of this Agreement, "business" and/or "potential business" includes any person, corporation, or other entity with respect to which, at any time during the two (2) year period before the termination of her employment with the Employer, the Employee acquired or had access to Confidential Information or had contact as a result of her employment with the Employer; and "employees" or "contractors" mean any employees or contractors of the Employer with whom the Employee had business contact as a result of her employment with the Employer.

8.0 **SEVERALBILITY**

8.1 In the event that any provision or part of this Agreement shall be deemed void or invalid by a court of competent jurisdiction, or an arbitration tribunal, the remaining provisions, or parts of it, shall be and remain in full force and effect. The parties agree that this agreement is subject to the minimum provisions of the ESA, such that if any provision of the Agreement does not meet the requirements of the ESA, the Agreement will be modified to meet those minimum statutory requirements.

9.0 **ENTIRE AGREEMENT**

9.1 This Agreement and the Intellectual Property and Confidentiality Agreement constitute the entire agreement between the Parties with respect to the employment of the

Employee and supersedes any and all other agreements, understandings, warranties or representations of any kind, written or oral, expressed or implied.

10.0 **CONTINUING COOPERATION**

10.1 The Employee agrees that she shall, both during the term of this Agreement and thereafter, fully co-operate with and assist the Employer in the resolution of complaints, claims or disputes against the Employer, including without limitation civil, criminal or regulatory proceedings.

11.0 **CONTINUING OBLIGATIONS**

11.1 Notwithstanding the termination of this Agreement for any reason whatsoever, the provisions of paragraphs 5, 6, 7, 8, 9, and 10 hereof and any other provisions of this Agreement necessary to give efficacy thereto shall continue in full force and effect following such termination.

12.0 **MODIFICATION, AMENDMENT OR WAIVER**

12.1 No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing and signed by the Employee and such officer as may be specifically designated by the CEO or Board of Directors. No waiver by either party hereto at any time of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party will be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time.

13.0 **WAIVER**

13.1 A waiver, express or implied, by the Employer of any default of the Employee in the observance or performance of this Agreement shall not constitute or be construed as a waiver or acceptance of any subsequent or other default.

14.0 **HEADINGS**

14.1 The headings or subheadings appearing in this Agreement are inserted for convenience of reference only and are not to be construed in any way as additions to or limitations of the covenants and terms of this Agreement.

15.0 **INDEPENDENT LEGAL ADVICE**

15.1 The Employee acknowledges and agrees that she has had the opportunity to seek independent legal advice in relation to the nature, contents, terms and effect of this Agreement and the Employee voluntarily accepted the consideration provided by the Employer for the purpose of entering into this Agreement.

16.0 **CONDITIONS**

16.1 This Agreement is conditional upon the Employee meeting each of the following conditions: (a) the Employee must sign below indicating Employee's acceptance of the terms and conditions of this Agreement and return it in accordance with the instructions set out in the offer letter that accompanies this Agreement; and (b) the Employee must complete the background screening process and other conditions of and contingencies related to this Agreement.

17.0 **COUNTERPARTS**

17.1 This Agreement may be executed in counterparts, and such original executed counterparts together shall constitute one agreement.

18.0 **CURRENCY**

18.1 All references to currency herein are references to Canadian dollars.

19.0 **NOTICE**

19.1 Any notice or other communication required or contemplated under this Agreement to be given by one party to the other shall be delivered or mailed by prepaid registered post to the party to receive same at the under noted address, namely:

(a) To the Employer:

Boeing Canada Operations LTD.
99 Murray Park Road
Winnipeg, Manitoba, Canada, R3J3M6

(b) To the Employee:

Susan Doniz
[Address]

ACKNOWLEDGEMENT

By signing below, the Employee acknowledges that: (a) the Employee has had sufficient time to review this Agreement; and (b) the Employee has read and understands the terms of this Agreement and the rights and obligations hereunder and agrees to all such terms.

4/28/2020	/s/ Susan Doniz	
Date	**SUSAN DONIZ**	
4/29/2020	By:	/s/ Herman Hansen
Date	Name:	Herman Hansen
	Title:	Senior Manager of Human Resources
	BOEING CANADA OPERATIONS LTD.	

Exhibit 10.2

International Notice of Terms

Supplemental Restricted Stock Units (Stock-Settled)

To:

BEMSID:

Grant Date:

The Boeing Company (the "Company") has awarded you a Supplemental Restricted Stock Unit award (the "Award") pursuant to The Boeing Company 2003 Incentive Stock Plan, as amended and restated from time to time (the "Plan"), and the provisions contained herein (the "Notice"). Capitalized terms not otherwise defined in this Notice shall have the meaning ascribed to them in the Plan. Your Award is subject to the terms of the Plan. If there is any inconsistency between the terms of this Notice and the terms of the Plan, the Plan's terms shall control. **You are required to accept and acknowledge the terms and conditions of the Award, through the mechanism and procedures determined by the Company, as a condition to receiving the Award.** The terms and conditions of the Award are as follows:

1. **RSU Award.** You have been awarded ___ Supplemental Restricted Stock Units ("RSUs"). Each RSU corresponds to one share of Common Stock.

2. **RSU Account.** The Company will maintain a record of the number of awarded RSUs in an account established in your name.

3. **Vesting of RSUs.** Subject to Sections 6 and 7, your RSUs will vest in three installments of 33%, 33%, and 34% respectively on each of the first, second, and third anniversaries of the Grant Date (or if such date(s) is not a Trading Day, the next Trading Day) (each such date, a "Vesting Date"). As soon as reasonably practicable following the applicable Vesting Date, you shall receive a number of shares of Common Stock equal to the aggregate number of RSUs that vest as of such date. Notwithstanding the foregoing, the RSUs may be settled in the form of: (a) cash, to the extent settlement in shares of Common Stock (i) is not standard Company practice in your country of employment (ii) is prohibited under applicable laws, (iii) would require you, the Company or, if different, the Related Company that employs you (the "Employer") to obtain the approval of any governmental and/or regulatory body in your country of residence (and country of employment, if different), or (iii) is administratively burdensome; or (b) shares of Common Stock, but the Company may require you to immediately sell such shares if necessary to comply with applicable laws (in which case, you hereby expressly authorize the Company to issue sales instructions in relation to such shares on your behalf). If, after the grant date but prior to an applicable Vesting Date, you transfer employment to a Related Company in another country (you will be considered to have transferred to a Related Company if you are paid through that Related Company's payroll) and the Company does not settle RSUs in shares of Common Stock in that country, the RSUs will be settled in cash. Subject to the terms and conditions outlined under Section 6 and 7, this Award is granted on the condition that you remain continuously employed by the Company or a Related Company from the Grant Date through the applicable Vesting Dates. "Trading Day" shall mean a day on which the New York Stock Exchange is open for trading.

4. **Dividend Equivalents.**

   4.1 While RSUs are in your account, they will earn dividend equivalents in the form of additional RSUs. Specifically, as of each dividend payment date for Common Stock, your RSU account will be credited with additional RSUs ("dividend equivalent RSUs") equal in number to the number of shares of Common Stock that could be bought with the cash dividends that would be paid on the RSUs in your account if each RSU were one share of Common Stock.

   4.2 The number of shares of Common Stock that could be bought with the cash dividends will be calculated to two decimal places and will be based on the "Fair Market Value" of a share of Common Stock on the applicable dividend payment date. For purposes of this Award, "Fair Market Value" means the average of the high and the low per share trading prices for Common Stock as reported by *The Wall Street Journal* for the specific dividend payment date, or by such other source as the Company deems reliable.

   4.3 Dividend equivalent RSUs will vest at the same time and in the same manner as the RSUs with which they are associated.

5. **Adjustment in Number of RSUs.** The number of RSUs in your account will be adjusted proportionately for any increase or decrease in the number of issued shares of Common Stock resulting from any stock split, combination or exchange of Common Stock, consolidation, spin-off or recapitalization of Common Stock, or any similar capital adjustment or the payment of any stock dividend.

6. **Termination Due to Layoff, Disability, or Death.** In the event your employment is terminated prior to the final Vesting Date by reason of layoff, disability, or death, your unvested RSUs, including any dividend equivalent RSUs, will vest in full. Payment for this Award will be made (i) in cash (rather than shares of Common Stock) as soon as administratively possible, but not later than 60 days after your termination of employment, in the event that your employment is terminated by reason of disability or death, or (ii) in shares of Common Stock at the same time as payment would have been made pursuant to Section 3 had your employment not terminated prior to the applicable Vesting Date, in the event that your employment is terminated by reason of layoff (provided, however, that if your termination by reason of layoff results in a taxable event at the time of termination, payment

of the Award may be made in accordance with clause (i)). For purposes of this Award, "disability" means a disability entitling you to benefits under any long-term disability policy sponsored by the Company or a Related Company.

7. **Forfeiture Upon Other Terminations.** In the event your employment is terminated prior to the final Vesting Date for any reason (including for cause and resignation) other than those reasons described in Section 6, all unvested RSUs (and all associated dividend equivalent RSUs) granted hereunder shall immediately be forfeited and canceled.

8. **Transferability.** RSUs are not transferable except by will or by laws of descent and distribution. You may designate a beneficiary to receive your Award in the event of your death.

9. **Clawback and Forfeiture Policy.**

9.1 This Award and any proceeds resulting from the vesting of this Award are subject to the Clawback Policy adopted by the Company's Board of Directors, as amended from time to time (the "Policy"). The Policy provides (among other things) that an Award may be subject to clawback and forfeiture (meaning that the Award or proceeds thereof must be promptly returned to the Company if already distributed, or that you will lose your entitlement to an Award if it has not yet been distributed) in the discretion of the Committee, if the Committee determines that you have (i) violated, or engaged in negligent conduct in connection with the supervision of someone who violated, any Company policy, law, or regulation that has compromised the safety of any of the Company's products or services and has, or reasonably could be expected to have, a material adverse impact on the Company, the Company's customers or the public; or (ii) engaged in fraud, bribery, or illegal acts like fraud or bribery, or knowingly failed to report such acts of an employee over whom you had direct supervisory responsibility.

9.2 In addition, subject to applicable law, or except as may be otherwise provided in the Addendum, this Award and any proceeds resulting from the vesting of this Award are subject to clawback and forfeiture in the event you engage in any of the following conduct, as determined by the Company or its delegate in its sole discretion, prior to the second anniversary of the later of the final Vesting Date or receipt of payment of the Award: you (i) plead or admit to, are convicted of, or are otherwise found guilty of a criminal or indictable offense involving theft, fraud, embezzlement, or other similar unlawful acts against the Company or against the Company's interests; (ii) directly or indirectly engage in competition with any aspect of Company business with which you were involved or about which you gained Company proprietary or confidential information; (iii) induce or attempt to induce, directly or indirectly, any of the Company's employees, representatives or consultants to terminate, discontinue or cease working with or for the Company, or to breach any contract with the Company, in order to work with or for, or enter into a contract with, you or any third party; (iv) disparage or defame the Company or its products or current or former employees, provided that this clause shall not be construed to prohibit any individual from reporting, in good faith, suspected unlawful conduct in the workplace; or (v) take, misappropriate, use or disclose Company proprietary or confidential information. Clawback can, if possible and where permitted by local law, be made by deducting payments that will become due in future (including salary, bonuses, or share awards). Your acceptance of this Award shall constitute your acknowledgement and recognition that your compliance with this Section 9 is a condition for your receipt of this Award. For purposes of this Section 9, the Company shall include the Company and all Related Companies.

9.3 Nothing in this Section 9 will apply to legally protected communications to government agencies or statements made in the course of sworn testimony in administrative, judicial or arbitral proceedings.

10. **Tax Withholding.** Subject to the terms of the Plan and as a condition to the grant of the RSUs, you acknowledge and agree that, regardless of any action taken by the Company or the Employer, the ultimate liability for all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to your participation in the Plan and legally applicable to you ("Tax-Related Items"), is and remains your responsibility and may exceed the amount actually withheld by the Company or the Employer. You further acknowledge that the Company and/or the Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the RSUs, including, but not limited to, the grant, vesting or payment of the RSUs; and (b) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the RSUs to reduce or eliminate your liability for Tax-Related Items or achieve any particular tax result. If your country of employment (and/or the country of residence, if different) requires withholding of Tax-Related Items, then prior to the issuance and delivery of any shares of Common Stock or cash upon the vesting of this Award, the Company, the Employer, or any plan administrator, as applicable: (x) shall withhold a sufficient number of whole shares of Common Stock otherwise issuable upon the vesting of this Award that have an aggregate Fair Market Value sufficient to pay the Tax-Related Items required to be withheld (in which case, the cash equivalent of such withheld shares of Common Stock shall be used to settle the withholding obligation); or (y) shall withhold an amount from your regular salary and/or wages, or from any other amounts payable to you, equal to the Tax-Related Items required to be withheld.

Depending on the withholding method, the Company, the Employer, or any plan administrator, as applicable, may withhold or account for Tax-Related Items by considering applicable statutory withholding rates, but such withholding shall not exceed an amount of withholding based on the maximum statutory rates in your applicable tax jurisdiction(s) (unless a lesser amount of withholding is required to avoid the classification of this Award as a liability on the Company's consolidated balance sheet or other adverse accounting treatment).

In the event the withholding requirements are not satisfied through the withholding of shares of Common Stock or through your regular salary and/or wages or other amounts payable to you, no shares of Common Stock will be issued to you and no cash payment will be made unless and until satisfactory arrangements (as determined by the Company or its delegate) have been

made by you with respect to the payment of any Tax-Related Items which the Company determines, in its sole discretion, must be withheld or collected with respect to this Award. If you are subject to taxation in more than one jurisdiction, you acknowledge that the Company and/or the Employer may be required to withhold or account for Tax-Related Items in more than one jurisdiction. By accepting the grant of this Award, you expressly consent to the withholding of shares of Common Stock and/or the withholding of amounts from your regular salary and/or wages, or other amounts payable to you, as provided for hereunder. All other Tax-Related Items related to this Award and any shares of Common Stock or cash acquired pursuant to the vesting of this Award are your sole responsibility.

11. **Consent to Collection, Processing and Transfer of Personal Data.** The Company is located at 100 North Riverside, Chicago, IL 60606, U.S.A. and grants RSUs under the Plan to employees of the Company and its Related Companies in its sole discretion. In conjunction with the Company's grant of the RSUs under the Plan and its ongoing administration of such awards, the Company is providing the following information about its data collection, processing and transfer practices ("Personal Data Activities"). In accepting the grant of the RSUs, you expressly and explicitly consent to the Personal Data Activities as described herein.

11.1 Data Collection, Processing and Usage. The Company collects, processes and uses your personal data, including your name, home address, email address, and telephone number, date of birth, social insurance number or other identification number, salary, citizenship, job title, any Common Stock or directorships held in the Company, and details of all RSUs or any other equity compensation awards granted, canceled, exercised, vested, or outstanding in your favor, which the Company receives from you. In granting the RSUs under the Plan, the Company will collect, process and use your personal data for purposes of allocating Common Stock and implementing, administering and managing the Plan. The Company's legal basis for the collection, processing and usage of your personal data is your consent.

11.2 Stock Plan Administration Service Provider. The Company transfers your personal data to an independent service provider based in the United States, which assists the Company with the implementation, administration and management of the Plan (the "Stock Plan Administrator"). In the future, the Company may select a different Stock Plan Administrator and share your personal data with another company that serves in a similar manner. The Stock Plan Administrator will open an account for you to receive and trade Common Stock acquired under the Plan. You will be asked to agree on separate terms and data processing practices with the Stock Plan Administrator, which is a condition to your ability to participate in the Plan.

11.3 International Data Transfers. The Company and the Stock Plan Administrator are based in the United States. You should note that your country of residence may have enacted data privacy laws that are different from the United States. The Company's legal basis for the transfer of your personal data to the United States is your consent.

11.4 Voluntariness and Consequences of Consent Denial or Withdrawal. Your participation in the Plan and your grant of consent is purely voluntary. You may deny or withdraw your consent at any time. If you do not consent, or if you later withdraw your consent, you may be unable to participate in the Plan. This would not affect your existing employment or salary; instead, you would forfeit the opportunities associated with the Plan.

11.5 Data Subjects Rights. You may have a number of rights under the data privacy laws in your country of residence. For example, your rights may include the right to (i) request access or copies of personal data the Company processes, (ii) request rectification of incorrect data, (iii) request deletion of data, (iv) place restrictions on processing, (v) lodge complaints with competent authorities in your country, and/or (vi) request a list with the names and addresses of any potential recipients of your personal data. To receive clarification regarding your rights or to exercise your rights, you should contact your local human resources department.

12. **Miscellaneous.**

12.1 No Right to Continued Employment or Service. This Notice shall not confer upon you any right to continuation of employment by the Company or any Related Company nor shall this Notice interfere in any way with the Company's or any Related Company's right to terminate your employment at any time, except to the extent expressly provided otherwise in a written agreement between you and the Company or a Related Company or as prohibited by law.

12.2 Termination Indemnities. The Award is an extraordinary item of compensation outside the scope of your employment contract, if any. As such, the Award is not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension, or retirement benefits or similar payments to which you may be otherwise entitled.

12.3 Discretionary Nature of Plan; No Vested Rights. You acknowledge and agree that the Plan is discretionary in nature and limited in duration, and may be amended, cancelled, or terminated by the Company, in its sole discretion, at any time. The grant of the Award under the Plan is a one-time benefit and does not create any contractual or other right to receive other awards or benefits in lieu of awards in the future. Future awards, if any, will be at the sole discretion of the Company, including, but not limited to, the timing of any grant, the form of award, and the vesting provisions.

12.4 EU Age Discrimination Rules. If you are a local national of and employed in a country that is a member of the European Union, the grant of this Award and the terms and conditions governing this Award are intended to comply with the age discrimination provisions of the EU Equal Treatment Framework Directive, as implemented into local law (the "Age Discrimination

Rules"). To the extent that a court or tribunal of competent jurisdiction determines that any provision of this Notice is invalid or unenforceable, in whole or in part, under the Age Discrimination Rules, the Company, in its sole discretion, shall have the power and authority to revise or strike such provision to the minimum extent necessary to make it valid and enforceable to the full extent permitted under local law.

12.5 Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to the Award or other awards granted to you under the Plan by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party-designated by the Company.

12.6 Private Placement. The grant of the Award is not intended to be a public offering of securities in your country of residence (and country of employment, if different) but instead is intended to be a private placement. As a private placement, the Company has not submitted any registration statement, prospectus or other filings with the local securities authorities (unless otherwise required under local law), and the grant of the Award is not subject to the supervision of the local securities authorities.

12.7 English Language. You acknowledge and agree that it is your express intent that the Notice, the Plan and all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Award, be drawn up in English. If you are in a country where English is not an official language, you acknowledge that you are sufficiently proficient in English or have the ability to consult with an advisor who is sufficiently proficient in the English language, so as to allow you to understand the terms and conditions of this Notice, the Plan and any other documents related to the Award. If you have received the Notice, the Plan or any other documents related to the RSUs translated into a language other than English, and if the meaning of the translated version is different than the English version, the English version will control.

12.8 Section 409A. This Award is intended to be exempt from or otherwise comply with Section 409A of the U.S. Internal Revenue Code and the regulations and guidance issued thereunder ("Section 409A"), and shall be interpreted and construed consistently with such intent. If you are a Specified Employee (as defined by the Company for purposes of Section 409A) upon your separation from service (as defined under Section 409A), any payments that are subject to the requirements of Section 409A and payable upon such separation from service from shall be delayed until six months after the date of the separation from service, to the extent required under Section 409A.

12.9 Compliance with Local Law. If you are resident or employed outside of the United States, as a condition to the grant of the Award, you agree to repatriate all payments attributable to the shares of Common Stock or cash acquired under the Plan in accordance with local foreign exchange rules and regulations in your country of residence (and country of employment, if different). In addition, you agree to take any and all actions, and consent to any and all actions taken by the Company and its Related Companies, as may be required to allow the Company and its Related Companies to comply with local laws, rules and regulations in your country of residence (and country of employment, if different). Finally, you agree to take any and all actions as may be required to comply with your personal legal and tax obligations under local laws, rules and regulations in your country of residence (and country of employment, if different).

12.10 Requirements of Law. The Award and payment thereof shall be subject to, and conditioned upon, satisfaction of all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

12.11 Addendum to Notice. Notwithstanding any provisions of this Notice to the contrary, the Award shall be subject to such special terms and conditions for your country of residence (and country of employment, if different), as the Company may determine in its sole discretion and which shall be set forth in an addendum to these terms and conditions (the "Addendum"). If you transfer your residence and/or employment to another country, any special terms and conditions for such country will apply to the Award to the extent the Company determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local laws, rules and regulations, or to facilitate the operation and administration of the Award and the Plan (or the Company may establish alternative terms and conditions as may be necessary or advisable to accommodate your transfer). In all circumstances, the Addendum shall constitute part of this Notice.

12.12 Governing Law. All questions concerning the construction, validity and interpretation of this Notice and the Plan shall be governed and construed according to the laws of the State of Delaware in the United States without regard to the application of the conflicts of laws provisions thereof, except as may be expressly required by other applicable law or as may be otherwise provided in the Addendum. Any disputes regarding this Award or the Plan shall be brought only in the state or federal courts of the State of Delaware in the United States, except as may be expressly required by other applicable law or as may be otherwise provided in the Addendum.

12.13 Insider Trading Notice. You acknowledge that, depending on your broker's country of residence or where Common Stock is listed, you may be subject to insider trading restrictions and/or market abuse laws which may affect your ability to accept, acquire, sell or otherwise dispose of Common Stock, rights to Common Stock or rights linked to the value of Common Stock during such times you are considered to have "inside information" regarding the Company as defined in the laws or regulations in your country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you placed before you possessed inside information. Furthermore, you could be prohibited from (i) disclosing the inside information to any third party (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. You understand that third parties may include fellow employees. Any restrictions under these laws or

regulations are separate from and in addition to any restrictions that may be imposed under any applicable Company insider trading policy. You acknowledge that it is your responsibility to comply with any restrictions and you are advised to speak to your personal legal advisor on this matter.

12.14 Additional Requirements. The Company reserves the right to impose other requirements on the Award, and your participation in the Plan, to the extent the Company determines, in its sole discretion, that such other requirements are necessary or advisable in order to comply with local laws, rules and regulations, or to facilitate the operation and administration of the Award and the Plan. Such requirements may include (but are not limited to) requiring you to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

12.15 Agreement to Terms of Plan, Notice and Addendum. By accepting this Award, you acknowledge that you have read and understand this Notice, the Addendum to this Notice, and the Plan, and you specifically accept and agree to the provisions contained therein.

Addendum to

International Notice of Terms of Supplemental Restricted Stock Units (Stock-Settled)

In addition to the terms of the Plan and the Notice, the Award is subject to the following additional terms and conditions as set forth in this Addendum to the extent you reside and/or are employed in one of the countries addressed herein. All defined terms as contained in this Addendum shall have the same meaning as set forth in the Plan and this Notice. To the extent you transfer residence and/or employment to another country, the special terms and conditions for such country as reflected in this Addendum (if any) will apply to you to the extent the Company determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local laws, rules and regulations, or to facilitate the operation and administration of the Award and the Plan (or the Company may establish alternative terms and conditions as may be necessary or advisable to accommodate your transfer).

Canada

1. **Clawback and Forfeiture Policy**. The following provision shall replace Section 9.2 of the Notice:

   10.2. In addition, subject to applicable law, this Award and any proceeds resulting from the vesting of this Award are subject to clawback and forfeiture in the event you engage in any of the following conduct, as determined by the Company or its delegate in its sole discretion, prior to the second anniversary of the later of the final Vesting Date or receipt of payment of the Award: you (i) plead or admit to, are convicted of, or are otherwise found guilty of a criminal or indictable offense involving theft, fraud, embezzlement, or other similar unlawful acts against the Company or against the Company's interests; (ii) directly or indirectly engage, within Canada, in competition with any aspect of Company business with which you were directly involved or about which you gained proprietary or confidential information during the twenty-four (24) months before the date you engaged in such competitive activity; (iii) induce or attempt to induce, directly or indirectly, any of the Company's employees, representatives or consultants, with whom you engaged on behalf of the Company during the twenty-four (24) months before the date of such inducement, to terminate, discontinue or cease working with or for the Company, or to breach any contract with the Company, in order to work with or for, or enter into a contract with, you or any third party; (iv) disparage or defame the Company or its products or current or former employees, provided that this clause shall not be construed to prohibit any individual from reporting, in good faith, suspected unlawful conduct in the workplace; or (v) take, misappropriate, use or disclose Company proprietary or confidential information. Clawback can, if possible and where permitted by local law, be made by deducting payments that will become due in future (including salary, bonuses, or share awards). Your acceptance of this Award shall constitute your acknowledgement and recognition that your compliance with this Section 9 is a condition for your receipt of this Award. For purposes of this Section 9, the Company shall include the Company and all Related Companies.

2. **Use of English Language**. If you are a resident of Quebec, by accepting your RSUs, you acknowledge and agree that it is your wish that the Notice, this Addendum, as well as all other documents, notices and legal proceedings entered into, given or instituted pursuant to your RSUs, either directly or indirectly, be drawn up in English.

   Langue anglaise. En acceptant l'allocation de vos RSUs, vous reconnaissez et acceptez avoir souhaité que le accord, le présent avenant, ainsi que tous autres documents exécutés, avis donnés et procédures judiciaires intentées, relatifs, directement ou indirectement, à l'allocation de vos RSUs, soient rédigés en anglais.

   BY SIGNING BELOW, YOU ACKNOWLEDGE, UNDERSTAND AND AGREE TO THE PROVISIONS OF THE NOTICE, THE PLAN AND THIS ADDENDUM.

   _____

   Signature

   _____

   Printed Name

   _____

   Date

   IMPORTANT NOTE: THIS ADDENDUM MUST BE SIGNED AND RETURNED TO THE LOCAL HR DEPARTMENT OF THE COMPANY'S AFFILIATE IN CANADA NO LATER THAN JUNE 15, 2020.

United Kingdom

1. **Clawback and Forfeiture Policy.** The following shall modify Section 9.2 of the Notice:

   Clauses (ii) and (iii) of Section 9.2 shall not apply.

This Award and any proceeds resulting from the vesting of this Award are also subject to clawback and forfeiture in the event you engage in any of the following conduct, as determined by the Company or its delegate in its sole discretion, within the Restricted Period: directly or indirectly, for your own benefit or that of others, (a) be employed by or otherwise provide services to a Competing Business which is being carried out or to be carried out in any Restricted Territory; (b) set up or carry on a Competing Business which is being carried out or to be carried out in any Restricted Territory; (c) solicit, attempt to solicit, assist in soliciting, entice away, or try to entice away, from the Company or any Related Company any Key Person; or (d) be personally involved to a material extent in accepting into employment, recruiting, engaging, or otherwise using the services of any Key Person. For the avoidance of doubt, none of the restrictions contained in this Section prevent you from holding any shares or other securities in any company or from doing anything for which the Company has given its prior written consent. The Company encourages you to seek such consent if necessary.

The restrictions this Section are considered by the parties to be fair and reasonable in all circumstances. Each of the restrictions contained in this Section, including the sub-paragraphs and sub-clauses thereof, constitutes an entirely separate, severable and independent restriction. If any restriction is found to be invalid this will not affect the validity or enforceability of any of the other restrictions. It is agreed that if any such restrictions by themselves, or taken together, are for any reason unenforceable, but would be enforceable if part or parts of the wording were deleted, the relevant restriction or restrictions shall apply with such deletion(s) as may be necessary to make it or them valid and enforceable.

For the purposes of this Section, any capitalized terms shall have the following meaning:

“Competing Business” means any business which competes with or is preparing to compete with (a) any business carried on by the Company or any Related Company; or (b) any business which the Company or any Related Company is proposing to carry on and has taken material steps towards conducting; and in each of cases (a) and (b) in respect of which business of the Company or Related Company you: (i) had material responsibilities (including, without limitation, supervisory or management responsibilities) or carried out material duties; or (ii) otherwise obtained Relevant Confidential Information, in each case in the course of your employment.

“Key Person” means any employee, director, or consultant engaged by the Company or any Related Company who provides or has provided executive, managerial, supervisory, financial, engineering, creative, professional, technical, account handling, or similar services to the Company or any Related Company (a) with whom you have had material dealings; or (b) in respect of whom you have obtained Relevant Confidential Information about their skills, role, responsibilities, expertise, or other Relevant Confidential Information or material nonpublic information relevant to their potential recruitment or engagement, in each case at any time during the course of your employment.

“Relevant Confidential Information” means information not generally known outside the Company or any Related Company or information entrusted to the Company or any Related Company by third parties, which may relate (by way of example and without limitation) to inventions, formulas, patterns, devices, methods, processes, computer technology and programming, research, development, engineering, manufacturing, purchasing, accounting, marketing, or selling, and may be contained (by way of example and without limitation) in materials such as drawings, models, data, specifications, records, reports, complications, or computer programs, and may be in the nature of unwritten knowledge or know-how, in each case, that may or would be of value to any business which competes or is preparing to compete with the Company or a Related Company.

“Restricted Period” means the period ending on the earlier of: (a) the second anniversary of the later of the final Vesting Date or the payment date for the Award; or (b) the six month anniversary of your termination of employment.

“Restricted Territory” means: (a) the United Kingdom; or (b) any other country where the Company or a Related Company carries out business and in relation to which you have had material responsibilities (including, without limitation, supervisory or management responsibilities) or carried out material duties during the course of your employment; or (c) any other country where the Company or a Related Company carries out business and in relation to which you acquired Relevant Confidential Information during the course of your employment.

2. **Income Tax and Social Insurance Contribution Withholding**. The following provision shall replace Section 10 of this Notice:

Without limitation to Section 10 of this Notice, you agree that you are liable for all Tax-Related Items and hereby covenants to pay all such Tax-Related Items, as and when requested by the Company, the Employer or by Her Majesty’s Revenue and Customs (“HMRC”) (or any other tax authority or any other relevant authority). You also agree to indemnify and keep indemnified the Company and the Employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on your behalf to HMRC (or any other tax authority or any other relevant authority).

Notwithstanding the foregoing, if you are a director or executive officer (as within the meaning of Section 13(k) of the U.S. Securities Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that you are a director or executive officer and income tax due is not collected from or paid by you within ninety (90) days after the U.K. tax year in which an event giving rise to the indemnification described above occurs, the amount of any uncollected tax may constitute a benefit to you on which additional income tax and national insurance contributions may be payable. You acknowledge that you ultimately will be responsible for reporting and paying any income tax due on

this additional benefit directly to HMRC under the self-assessment regime and for reimbursing the Company or the Employer (as applicable) for the value of any employee national insurance contributions due on this additional benefit, which the Company and/or the Employer may recover from you at any time thereafter by any of the means referred to in Section 10 of this Notice.

3. **Exclusion of Claim.** You acknowledge and agree that you shall have no entitlement to compensation or damages in consequence of the termination of your employment with the Company or any Related Company for any reason whatsoever and whether or not in breach of contract, insofar as such entitlement arises or may arise from your ceasing to have rights under or to be entitled to vesting in your RSUs as a result of such termination, or from the loss or diminution in value of your RSUs. Upon the grant of your RSUs, you shall be deemed irrevocably to have waived any such entitlement.

4. **Brexit**. To the extent that the United Kingdom is no longer a part of the European Union following the United Kingdom's anticipated withdrawal from the European Union, but the laws discussed herein still apply to the United Kingdom for a period of time following the anticipated withdrawal, all references to the European Union shall include the United Kingdom, unless otherwise stated in this document.

Acknowledgement and Acceptance:
I acknowledge that I have read and understand this Notice, the Addendum, and the Plan, and I accept and agree to the provisions contained therein.

Name: _____

Signature: _____

Date: _____

EXHIBIT 15

LETTER IN LIEU OF CONSENT FOR REVIEW REPORT

July 29, 2020

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, 2020 and 2019, as indicated in our report dated July 29, 2020; 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, 2020, 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, David L. Calhoun, 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 29, 2020

/s/ David L. Calhoun

David L. Calhoun
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 29, 2020

/s/ Gregory D. Smith

Gregory D. Smith
Chief Financial Officer
Executive Vice President Enterprise Operations and interim leader of Communications

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, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David L. Calhoun, 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/ David L. Calhoun

David L. Calhoun
President and Chief Executive Officer

July 29, 2020

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, 2020, 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 Operations and interim leader of Communications 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
Executive Vice President Enterprise Operations and interim leader of Communications

July 29, 2020