

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

FORM 10-Q

Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
for the quarterly period ended July 1, 2017.

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 001-32833

TransDigm Group Incorporated

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

41-2101738
(I.R.S. Employer Identification No.)

1301 East 9th Street, Suite 3000, Cleveland, Ohio
(Address of principal executive offices)

44114
(Zip Code)

(216) 706-2960
(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report.)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES NO

Indicate by check mark whether the registrant is a large accelerated filer, accelerated filer, non-accelerated filer, smaller reporting company or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

LARGE ACCELERATED FILER	<input checked="" type="checkbox"/>	ACCELERATED FILER	<input type="checkbox"/>
NON-ACCELERATED FILER	<input type="checkbox"/>	SMALLER REPORTING COMPANY	<input type="checkbox"/>
EMERGING GROWTH COMPANY	<input type="checkbox"/>		

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

The number of shares outstanding of TransDigm Group Incorporated's common stock, par value \$.01 per share, was 51,910,534 as of July 31, 2017.

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TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except share amounts)
(Unaudited)

	July 1, 2017	September 30, 2016
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 970,556	\$ 1,586,994
Trade accounts receivable - Net	606,005	576,339
Inventories - Net	743,579	724,011
Prepaid expenses and other	66,890	43,353
Total current assets	2,387,030	2,930,697
PROPERTY, PLANT AND EQUIPMENT - NET	326,325	310,580
GOODWILL	5,800,618	5,679,452
OTHER INTANGIBLE ASSETS - NET	1,752,614	1,764,343
OTHER	49,849	41,205
TOTAL ASSETS	\$ 10,316,436	\$ 10,726,277
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES:		
Current portion of long-term debt	\$ 64,090	\$ 52,645
Short-term borrowings - trade receivable securitization facility	199,978	199,771
Accounts payable	147,080	156,075
Accrued liabilities	319,569	344,112
Total current liabilities	730,717	752,603
LONG-TERM DEBT	10,828,200	9,943,191
DEFERRED INCOME TAXES	499,465	492,255
OTHER NON-CURRENT LIABILITIES	153,499	189,718
Total liabilities	12,211,881	11,377,767
STOCKHOLDERS' DEFICIT:		
Common stock - \$.01 par value; authorized 224,400,000 shares; issued 56,043,608 and 55,767,767 at July 1, 2017 and September 30, 2016, respectively	560	558
Additional paid-in capital	1,079,543	1,028,972
Accumulated deficit	(2,088,761)	(1,146,963)
Accumulated other comprehensive loss	(112,696)	(149,787)
Treasury stock, at cost; 4,156,659 shares at July 1, 2017 and 2,433,035 at September 30, 2016, respectively	(774,091)	(384,270)
Total stockholders' deficit	(1,895,445)	(651,490)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ 10,316,436	\$ 10,726,277

See notes to condensed consolidated financial statements.

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
FOR THE THIRTEEN AND THIRTY-NINE WEEK PERIODS ENDED
JULY 1, 2017 AND JULY 2, 2016
(Amounts in thousands, except per share amounts)
(Unaudited)

	Thirteen Week Periods Ended		Thirty-Nine Week Periods Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
NET SALES	\$ 907,667	\$ 797,692	\$ 2,594,917	\$ 2,296,188
COST OF SALES	385,896	354,177	1,137,803	1,052,444
GROSS PROFIT	521,771	443,515	1,457,114	1,243,744
SELLING AND ADMINISTRATIVE EXPENSES	110,561	94,244	314,868	271,511
AMORTIZATION OF INTANGIBLE ASSETS	23,570	18,629	71,235	53,474
INCOME FROM OPERATIONS	387,640	330,642	1,071,011	918,759
INTEREST EXPENSE - NET	152,227	120,812	446,073	344,083
REFINANCING COSTS	345	15,654	35,936	15,654
INCOME BEFORE INCOME TAXES	235,068	194,176	589,002	559,022
INCOME TAX PROVISION	66,015	33,554	145,573	127,276
NET INCOME	\$ 169,053	\$ 160,622	\$ 443,429	\$ 431,746
NET INCOME APPLICABLE TO COMMON STOCK	\$ 169,053	\$ 160,622	\$ 347,458	\$ 428,746
Net earnings per share:				
Basic and diluted	\$ 3.08	\$ 2.88	\$ 6.23	\$ 7.63
Cash dividends paid per common share	\$ —	\$ —	\$ 24.00	\$ —
Weighted-average shares outstanding:				
Basic and diluted	54,890	55,832	55,773	56,263

See notes to condensed consolidated financial statements.

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE THIRTEEN AND THIRTY-NINE WEEK PERIODS ENDED
JULY 1, 2017 AND JULY 2, 2016
(Amounts in thousands)
(Unaudited)

	<u>Thirteen Week Periods Ended</u>		<u>Thirty-Nine Week Periods Ended</u>	
	<u>July 1, 2017</u>	<u>July 2, 2016</u>	<u>July 1, 2017</u>	<u>July 2, 2016</u>
Net income	\$ 169,053	\$ 160,622	\$ 443,429	\$ 431,746
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	24,525	(20,257)	4,523	(24,571)
Interest rate swap and cap agreements	(8,386)	(7,435)	32,568	(16,960)
Other comprehensive income (loss), net of tax	16,139	(27,692)	37,091	(41,531)
TOTAL COMPREHENSIVE INCOME	\$ 185,192	\$ 132,930	\$ 480,520	\$ 390,215

See notes to condensed consolidated financial statements.

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' DEFICIT
FOR THE THIRTY-NINE WEEK PERIOD ENDED JULY 1, 2017

(Amounts in thousands, except share amounts)

(Unaudited)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Treasury Stock		Total
	Number of Shares	Par Value				Number of Shares	Value	
BALANCE, OCTOBER 1, 2016	55,767,767	\$ 558	\$ 1,028,972	\$ (1,146,963)	\$ (149,787)	(2,433,035)	\$ (384,270)	\$ (651,490)
Dividends paid	—	—	—	(1,280,070)	—	—	—	(1,280,070)
Unvested dividend equivalents	—	—	—	(105,157)	—	—	—	(105,157)
Compensation expense recognized for employee stock options	—	—	32,707	—	—	—	—	32,707
Exercise of employee stock options	277,873	2	18,046	—	—	—	—	18,048
Restricted stock activity	(2,548)	—	(301)	—	—	—	—	(301)
Treasury stock purchased	—	—	—	—	—	(1,723,624)	(389,821)	(389,821)
Common stock issued	516	—	119	—	—	—	—	119
Net income	—	—	—	443,429	—	—	—	443,429
Foreign currency translation adjustments	—	—	—	—	4,523	—	—	4,523
Interest rate swaps and caps, net of tax	—	—	—	—	32,568	—	—	32,568
BALANCE, JULY 1, 2017	56,043,608	\$ 560	\$ 1,079,543	\$ (2,088,761)	\$ (112,696)	(4,156,659)	\$ (774,091)	\$ (1,895,445)

See notes to condensed consolidated financial statements.

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands)
(Unaudited)

	Thirty-Nine Week Periods Ended	
	July 1, 2017	July 2, 2016
OPERATING ACTIVITIES:		
Net income	\$ 443,429	\$ 431,746
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	37,924	31,059
Amortization of intangible assets and product certification costs	71,927	54,042
Amortization of debt issuance costs, original issue discount and premium	15,530	11,711
Refinancing costs	35,936	15,654
Non-cash equity compensation	32,707	33,819
Deferred income taxes	270	4,489
Changes in assets/liabilities, net of effects from acquisitions of businesses:		
Trade accounts receivable	(21,195)	(37,348)
Inventories	(325)	(15,689)
Income taxes receivable/payable	(12,782)	(41,602)
Other assets	(4,104)	1,778
Accounts payable	(12,342)	(27,103)
Accrued interest	741	34,918
Accrued and other liabilities	(32,500)	(15,298)
Net cash provided by operating activities	<u>555,216</u>	<u>482,176</u>
INVESTING ACTIVITIES:		
Capital expenditures	(55,671)	(30,007)
Payments made in connection with acquisitions - see Note 3	(215,202)	(1,143,006)
Net cash used in investing activities	<u>(270,873)</u>	<u>(1,173,013)</u>
FINANCING ACTIVITIES:		
Proceeds from exercise of stock options	18,046	25,320
Special dividend and dividend equivalent payments	(1,376,034)	(3,000)
Treasury stock purchased	(389,821)	(207,755)
Proceeds from 2017 term loans, net	1,132,755	—
Proceeds from 2016 term loans, net	—	1,712,244
Repayment on term loans	(48,453)	(821,140)
Proceeds from senior subordinated notes due 2026, net	—	939,935
Cash tender and redemption of senior subordinated notes due 2021, including premium	(528,847)	—
Proceeds from additional senior subordinated notes due 2025, net	300,517	—
Other	(10,777)	(2,309)
Net cash (used in) provided by financing activities	<u>(902,614)</u>	<u>1,643,295</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	1,833	204
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(616,438)	952,662
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	1,586,994	714,033
CASH AND CASH EQUIVALENTS, END OF PERIOD	<u>\$ 970,556</u>	<u>\$ 1,666,695</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Cash paid during the period for interest	<u>\$ 434,295</u>	<u>\$ 295,374</u>
Cash paid during the period for income taxes	<u>\$ 157,899</u>	<u>\$ 145,074</u>

See notes to condensed consolidated financial statements.

TRANSDIGM GROUP INCORPORATED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
THIRTY-NINE WEEK PERIODS ENDED JULY 1, 2017 AND JULY 2, 2016
(UNAUDITED)

1. DESCRIPTION OF THE BUSINESS

Description of the Business – TransDigm Group Incorporated (“TD Group”), through its wholly-owned subsidiary, TransDigm Inc., is a leading global designer, producer and supplier of highly engineered aircraft components for use on nearly all commercial and military aircraft in service today. TransDigm Inc., along with TransDigm Inc.’s direct and indirect wholly-owned operating subsidiaries (collectively, with TD Group, the “Company” or “TransDigm”), offers a broad range of proprietary aerospace components. TD Group has no significant assets or operations other than its 100% ownership of TransDigm Inc. TD Group’s common stock is listed on the New York Stock Exchange, or the NYSE, under the trading symbol “TDG.”

Major product offerings, substantially all of which are ultimately provided to end-users in the aerospace industry, include mechanical/electro-mechanical actuators and controls, ignition systems and engine technology, specialized pumps and valves, power conditioning devices, specialized AC/DC electric motors and generators, NiCad batteries and chargers, engineered latching and locking devices, rods and locking devices, engineered connectors and elastomers, databus and power controls, cockpit security components and systems, specialized cockpit displays, aircraft audio systems, specialized lavatory components, seat belts and safety restraints, engineered interior surfaces and related components, lighting and control technology, military personnel parachutes, high performance hoists, winches and lifting devices, and cargo loading, handling and delivery systems.

2. UNAUDITED INTERIM FINANCIAL INFORMATION

The financial information included herein is unaudited; however, the information reflects all adjustments (consisting of normal recurring adjustments) that are, in the opinion of management, necessary for a fair presentation of the Company’s financial position and results of operations and cash flows for the interim periods presented. These financial statements and notes should be read in conjunction with the financial statements and related notes for the year ended September 30, 2016 included in TD Group’s Form 10-K filed on November 15, 2016. As disclosed therein, the Company’s annual consolidated financial statements were prepared in conformity with generally accepted accounting principles in the United States (“GAAP”). The September 30, 2016 condensed consolidated balance sheet was derived from TD Group’s audited financial statements. The results of operations for the thirty-nine week period ended July 1, 2017 are not necessarily indicative of the results to be expected for the full year.

Certain reclassifications have been made to the prior year condensed consolidated financial statements to conform to current year classifications related to the adoption of ASU 2016-09 during the fourth quarter of fiscal 2016 impacting the classification of excess tax benefits for share-based payments which are recognized as a component of the income tax provision rather than a component of additional paid-in capital. The accounting pronouncement and impact of the fiscal year 2016 adoption of the pronouncement on the condensed consolidated financial statements is summarized in Note 4, “Recent Accounting Pronouncements.”

3. ACQUISITIONS

During the thirty-nine week period ended July 1, 2017, the Company completed the acquisitions of Schroth Safety Products GmbH and certain aviation and defense assets from subsidiaries of Takata Corporation (collectively, “Schroth”) and three separate aerospace product lines (collectively, “Third Quarter 2017 Acquisitions”). During the fiscal year ended September 30, 2016, the Company completed the acquisitions of Young & Franklin Inc. / Tactair Fluid Controls Inc. (“Y&F/Tactair”), Data Device Corporation (“DDC”) and Breeze-Eastern Corporation (“Breeze-Eastern”). The Company accounted for the acquisitions using the acquisition method and included the results of operations of the acquisitions in its consolidated financial statements from the effective date of each acquisition. As of July 1, 2017, the one-year measurement period is open for Schroth, Y&F/Tactair and the Third Quarter 2017 Acquisitions; therefore, the assets acquired and liabilities assumed related to these acquisitions are subject to adjustment until the end of the respective one-year measurement period. The Company is in the process of obtaining a third-party valuation of certain tangible and intangible assets of Schroth and of certain tangible and intangible assets of the Third Quarter 2017 Acquisitions. Pro forma net sales and results of operations for the acquisitions had they occurred at the beginning of the applicable thirty-nine week period ended July 1, 2017 or July 2, 2016 are not material and, accordingly, are not provided.

The acquisitions strengthen and expand the Company’s position to design, produce and supply highly engineered proprietary aerospace components in niche markets with significant aftermarket content and provide opportunities to create value through the application of our three core value-driven operating strategies (obtaining profitable new business, improving our cost structure, and providing highly engineered value-added products to customers). The purchase price

paid for each acquisition reflects the current earnings before interest, taxes, depreciation and amortization (EBITDA) and cash flows, as well as the future EBITDA and cash flows expected to be generated by the business, which are driven in most cases by the recurring aftermarket consumption over the life of a particular aircraft, estimated to be approximately 25 to 30 years.

Third Quarter 2017 Acquisitions – During the third quarter of fiscal 2017, the Company acquired three separate aerospace product lines (collectively, "Third Quarter 2017 Acquisitions") for a total purchase price of approximately \$105.5 million in cash. All three product lines consist primarily of proprietary, sole source products with significant aftermarket content. The products include highly engineered aerospace controls, quick disconnect couplings, and communication electronics. Each product line acquired was consolidated into an existing TransDigm reporting unit within TransDigm's Power & Control segment. The Company expects that approximately \$61 million of goodwill recognized for the acquisitions will be deductible for tax purposes over 15 years and approximately \$6 million of goodwill recognized for the acquisitions will not be deductible for tax purposes.

Schroth – On February 22, 2017, the Company acquired all of the outstanding stock of Schroth Safety Products GmbH and certain aviation and defense assets and liabilities from subsidiaries of Takata Corporation (collectively, "Schroth"), for a total purchase price of approximately \$89.7 million, of which \$79.7 million was paid in cash, which includes a working capital settlement of \$0.8 million paid in the third quarter of fiscal 2017, and the remaining approximately \$10.0 million is accrued related to an indemnity holdback and certain other adjustments to be settled within the one-year measurement period. Schroth designs and manufactures proprietary, highly engineered, advanced safety systems for aviation, racing and military ground vehicles throughout the world. Schroth is included in TransDigm's Airframe segment. The Company expects that approximately \$26 million of goodwill recognized for the acquisition will be deductible for tax purposes over 15 years and approximately \$39 million of goodwill recognized for the acquisition will not be deductible for tax purposes.

Y&F/Tactair – On September 23, 2016, the Company acquired all of the outstanding stock of Young & Franklin, Inc., the parent company of Tactair Fluid Controls, Inc. ("Y&F/Tactair"), for approximately \$258.8 million in cash, which includes a working capital settlement of \$2.7 million paid in the first quarter of fiscal 2017. Y&F/Tactair manufactures proprietary, highly engineered valves and actuators. Y&F/Tactair is included in TransDigm's Power & Control segment. The purchase price includes approximately \$74.5 million of tax benefits being realized by the Company over a 15-year period that began in the first quarter of fiscal 2017. The Company expects that approximately \$122 million of goodwill recognized for the acquisition will be deductible for tax purposes over 15 years and approximately \$8 million of goodwill recognized for the acquisition will not be deductible for tax purposes.

DDC – On June 23, 2016, the Company acquired all of the outstanding stock of ILC Holdings, Inc., the parent company of Data Device Corporation ("DDC"), from Behrman Capital for a total purchase price of approximately \$997.7 million in cash, which includes a working capital settlement of \$1.4 million received in the first quarter of fiscal 2017. TransDigm financed the acquisition of DDC with cash proceeds from the issuance of senior subordinated notes due in June 2026 and term loans. DDC is a supplier of databus and power controls and related products that are used primarily in military avionics, commercial aerospace and space applications. DDC is included in TransDigm's Power & Control segment.

The total purchase price of DDC was allocated to the underlying assets acquired and liabilities assumed based upon management's estimated fair values at the date of acquisition. To the extent the purchase price exceeded the estimated fair value of the net identifiable tangible and intangible assets acquired, such excess was allocated to goodwill. The following table summarizes the final purchase price allocation of the estimated fair values of the assets acquired and liabilities assumed at the transaction date (in thousands).

Assets acquired:	
Current assets, excluding cash acquired	\$ 107,728
Property, plant, and equipment	20,818
Intangible assets	229,300
Goodwill	750,935
Other	2,036
Total assets acquired	\$ 1,110,817
Liabilities assumed:	
Current liabilities	\$ 26,520
Other noncurrent liabilities	86,642
Total liabilities assumed	\$ 113,162
Net assets acquired	\$ 997,655

Approximately \$740 million of goodwill recognized for the acquisition is not deductible for tax purposes and approximately \$11 million of goodwill recognized for the acquisition is deductible for tax purposes over 15 years.

Breeze-Eastern – On January 4, 2016, the Company completed the tender offer for all of the outstanding stock of Breeze-Eastern Corporation ("Breeze-Eastern") for \$19.61 per share in cash. The purchase price was approximately \$205.9 million, of which \$146.4 million (net of cash acquired of \$30.8 million) was paid at closing and \$34.9 million was paid to dissenting shareholders during the first fiscal quarter of 2017. Of the \$34.9 million payment, \$28.7 million related to the original merger consideration and \$6.2 million represented the settlement reached with the dissenting shareholders resolving the dispute over the dissenting shareholders' statutory appraisal action. Of the \$6.2 million settlement, \$4.9 million was recorded as selling and administrative expense and \$1.3 million was recorded as interest expense for statutory interest arising under Delaware General Corporation Law. Breeze-Eastern manufactures high performance lifting and pulling devices for military and civilian aircraft, including rescue hoists, winches and cargo hooks, and weapons-lifting systems. These products fit well with TransDigm's overall business direction. Breeze-Eastern is included in TransDigm's Power & Control segment. All of the approximately \$115 million of goodwill recognized for the acquisition is not deductible for tax purposes.

The Breeze-Eastern acquisition includes environmental reserves recorded at a fair value of approximately \$24.6 million. Of the \$24.6 million in environmental reserves as of July 1, 2017, \$3.4 million is included in accrued liabilities and \$21.2 million is included in other non-current liabilities on the condensed consolidated balance sheet. The estimated \$24.6 million fair value of the environmental reserves for Breeze-Eastern are recorded at the probable and estimable amount. The environmental matters relate to soil and groundwater contamination and other environmental matters at several former facilities unrelated to Breeze-Eastern's current operations.

4. RECENT ACCOUNTING PRONOUNCEMENTS

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, which creates a new topic in the Accounting Standards Codification ("ASC") 606, "Revenue From Contracts With Customers." In addition to superseding and replacing nearly all existing U.S. GAAP revenue recognition guidance, including industry-specific guidance, ASC 606 establishes a new control-based revenue recognition model; changes the basis for deciding when revenue is recognized over time or at a point in time; provides new and more detailed guidance on specific topics; and expands and improves disclosures about revenue. The new revenue standards may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of adoption. The guidance is effective for the Company for annual reporting periods, including interim periods therein, beginning October 1, 2018, which is the planned date of adoption. We have performed a preliminary review of the new guidance as compared to our current accounting policies. For each reporting unit, we are reviewing a representative sample of contracts and other agreements with our customers and are evaluating the provisions contained within these contracts and agreements in consideration of the five step model specified within ASC 606. The Company is currently evaluating the impact that adopting the standard, along with the subsequent updates and clarifications, will have on its consolidated financial statements and disclosures. During the remainder of fiscal 2017, we plan to finalize our review and determine our method of adoption.

In September 2015, the FASB issued ASU 2015-16, "Simplifying the Accounting for Measurement-Period Adjustments," a new standard intended to simplify the accounting for measurement period adjustments in a business combination. Measurement period adjustments are changes to provisional amounts recorded when the accounting for a business combination is incomplete as of the end of a reporting period. The measurement period can extend for up to a year following the transaction date. During the measurement period, companies may make adjustments to provisional amounts when information necessary to complete the measurement is received. The new guidance requires companies to recognize these adjustments, including any related impacts to net income, in the reporting period in which the adjustments are determined. Companies are no longer required to retroactively apply measurement period adjustments to all periods presented. The guidance was effective for the Company on October 1, 2016. However, as early adoption was permissible, the Company adopted the pronouncement beginning October 1, 2015. The adoption of this pronouncement did not have a significant impact on the Company's consolidated financial statements and disclosures.

In February 2016, the FASB issued ASU 2016-02, "Leases (ASC 842)," which will require that a lessee recognize assets and liabilities on the balance sheet for all leases with a lease term of more than twelve months, with the result being the recognition of a right of use asset and a lease liability. The guidance is effective for the Company for annual reporting periods, including interim periods therein, beginning October 1, 2019, with early adoption permitted. The Company is currently evaluating the impact of adopting this standard on its consolidated financial statements and disclosures.

In March 2016, the FASB issued ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting." The guidance requires the recognition of the income tax effects of awards in the income statement when the awards vest or are settled, thus eliminating additional paid in capital pools. The guidance also allows for the employer to repurchase more of an employee's shares for tax withholding purposes without triggering liability accounting. In addition, the guidance

allows for a policy election to account for forfeitures as they occur rather than on an estimated basis. The guidance is effective for the Company for annual reporting periods, including interim periods therein, beginning October 1, 2017, with early adoption permitted. As early adoption is permissible, the Company adopted this standard in the fourth quarter of fiscal 2016. As a result of adopting the standard in the fourth quarter of fiscal 2016, the condensed consolidated financial statements and earnings per share for the thirteen and thirty-nine week periods ended July 2, 2016 were recasted where presented within this Form 10-Q to reflect the impact of this standard as if the Company had adopted as of the beginning of fiscal 2016. Therefore, approximately \$20.0 million and \$37.6 million in quarter-to-date and year-to-date excess tax benefits as of July 2, 2016 were reclassified from a component of additional paid-in-capital to a component of the income tax provision with a quarter-to-date and year-to-date favorable impact to basic and diluted earnings per common share of \$0.36 and \$0.68, respectively. The corresponding cash flows are reflected in cash provided by operating activities instead of financing activities, as required. The Company continued to account for forfeitures on an estimated basis.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments (ASU 2016-13)," which changes the impairment model for most financial assets. The new model uses a forward-looking expected loss method, which will generally result in earlier recognition of allowances for losses. ASU 2016-13 is effective for annual and interim periods beginning after December 15, 2019 and early adoption is permitted for annual and interim periods beginning after December 15, 2018. The Company is currently evaluating the impact of adopting this standard on its consolidated financial statements and disclosures.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows—Classification of Certain Cash Receipts and Cash Payments," which clarifies existing guidance related to accounting for cash receipts and cash payments and classification on the statement of cash flows. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, and early adoption is permitted. The Company is currently evaluating the impact of adopting this standard on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment," to eliminate Step 2 from the goodwill impairment test in order to simplify the subsequent measurement of goodwill. The guidance is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The adoption of this standard is not expected to have a material impact on its consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, "Compensation—Stock Compensation (ASC 718): Scope of Modification Accounting," which provides clarity on which changes to the terms or conditions of share-based payment awards require an entity to apply the modification accounting provisions required in ASC 718. The standard is effective for all entities for annual periods beginning after December 15, 2017, with early adoption permitted, including adoption in any interim period for which financial statements have not yet been issued. The adoption of this standard is not expected to have a material impact on its consolidated financial statements.

5. EARNINGS PER SHARE (TWO-CLASS METHOD)

The following table sets forth the computation of basic and diluted earnings per share (in thousands, except per share data):

	Thirteen Week Periods Ended		Thirty-Nine Week Periods Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
Numerator for earnings per share:				
Net income	\$ 169,053	\$ 160,622	\$ 443,429	\$ 431,746
Less dividends paid on participating securities	—	—	(95,971)	(3,000)
Net income applicable to common stock - basic and diluted	\$ 169,053	\$ 160,622	\$ 347,458	\$ 428,746
Denominator for basic and diluted earnings per share under the two-class method:				
Weighted average common shares outstanding	51,932	53,076	52,718	53,339
Vested options deemed participating securities	2,958	2,756	3,055	2,924
Total shares for basic and diluted earnings per share	54,890	55,832	55,773	56,263
Basic and diluted earnings per share	\$ 3.08	\$ 2.88	\$ 6.23	\$ 7.63

6. INVENTORIES

Inventories are stated at the lower of cost or market. Cost of inventories is generally determined by the average cost and the first-in, first-out (FIFO) methods and includes material, labor and overhead related to the manufacturing process.

Inventories consist of the following (in thousands):

	July 1, 2017	September 30, 2016
Raw materials and purchased component parts	\$ 510,739	\$ 464,410
Work-in-progress	191,246	188,417
Finished goods	135,940	153,253
Total	837,925	806,080
Reserves for excess and obsolete inventory	(94,346)	(82,069)
Inventories - Net	<u>\$ 743,579</u>	<u>\$ 724,011</u>

7. INTANGIBLE ASSETS

Other intangible assets - net in the condensed consolidated balance sheets consist of the following (in thousands):

	July 1, 2017			September 30, 2016		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Trademarks and trade names	\$ 733,459	\$ —	\$ 733,459	\$ 720,263	\$ —	\$ 720,263
Technology	1,305,477	335,902	969,575	1,279,335	288,429	990,906
Order backlog	29,534	25,250	4,284	55,341	29,641	25,700
Other	63,571	18,275	45,296	43,331	15,857	27,474
Total	<u>\$ 2,132,041</u>	<u>\$ 379,427</u>	<u>\$ 1,752,614</u>	<u>\$ 2,098,270</u>	<u>\$ 333,927</u>	<u>\$ 1,764,343</u>

Intangible assets acquired during the thirty-nine week period ended July 1, 2017 were as follows (in thousands):

	Gross Amount	Amortization Period
Intangible assets not subject to amortization:		
Goodwill	\$ 131,895	
Trademarks and trade names	6,500	
	<u>138,395</u>	
Intangible assets subject to amortization:		
Technology	32,000	20 years
Order backlog	4,000	1 year
	<u>36,000</u>	17.9 years
Total	<u>\$ 174,395</u>	

The aggregate amortization expense on identifiable intangible assets for the thirty-nine week periods ended July 1, 2017 and July 2, 2016 was approximately \$71.2 million and \$53.5 million, respectively. The estimated amortization expense is \$89.9 million for fiscal year 2017, \$70.3 million for fiscal year 2018 and \$67.7 million for each of the four succeeding fiscal years 2019 through 2022.

The following is a summary of changes in the carrying value of goodwill by segment from September 30, 2016 through July 1, 2017 (in thousands):

	Power & Control	Airframe	Non-aviation	Total
Balance - September 30, 2016	\$ 3,247,490	\$ 2,376,593	\$ 55,369	\$ 5,679,452
Goodwill acquired during the year	66,633	65,262	—	131,895
Purchase price allocation adjustments	(12,194)	—	—	(12,194)
Currency translation adjustment	—	1,465	—	1,465
Balance - July 1, 2017	<u>\$ 3,301,929</u>	<u>\$ 2,443,320</u>	<u>\$ 55,369</u>	<u>\$ 5,800,618</u>

8. DEBT

The Company's debt consists of the following (in thousands):

July 1, 2017

	Gross Amount	Debt Issuance Costs	Original Issue Discount or Premium	Net Amount
Short-term borrowings—trade receivable securitization facility	\$ 200,000	\$ (22)	\$ —	\$ 199,978
Term loans	\$ 6,390,254	\$ (54,737)	\$ (15,178)	\$ 6,320,339
5 1/2% senior subordinated notes due 2020 (2020 Notes)	550,000	(3,507)	—	546,493
7 1/2% senior subordinated notes due 2021 (2021 Notes)	—	—	—	—
6% senior subordinated notes due 2022 (2022 Notes)	1,150,000	(7,301)	—	1,142,699
6 1/2% senior subordinated notes due 2024 (2024 Notes)	1,200,000	(8,336)	—	1,191,664
6 1/2% senior subordinated notes due 2025 (2025 Notes)	750,000	(4,165)	4,318	750,153
6 3/8% senior subordinated notes due 2026 (2026 Notes)	950,000	(9,058)	—	940,942
	10,990,254	(87,104)	(10,860)	10,892,290
Less current portion	64,603	(513)	—	64,090
Long-term debt	\$ 10,925,651	\$ (86,591)	\$ (10,860)	\$ 10,828,200

September 30, 2016

	Gross Amount	Debt Issuance Costs	Original Issue Discount or Premium	Net Amount
Short-term borrowings—trade receivable securitization facility	\$ 200,000	\$ (229)	\$ —	\$ 199,771
Term loans	\$ 5,288,708	\$ (42,662)	\$ (11,439)	\$ 5,234,607
2020 Notes	550,000	(4,299)	—	545,701
2021 Notes	500,000	(3,141)	—	496,859
2022 Notes	1,150,000	(8,381)	—	1,141,619
2024 Notes	1,200,000	(9,218)	—	1,190,782
2025 Notes	450,000	(4,144)	—	445,856
2026 Notes	950,000	(9,588)	—	940,412
	10,088,708	(81,433)	(11,439)	9,995,836
Less current portion	53,074	(429)	—	52,645
Long-term debt	\$ 10,035,634	\$ (81,004)	\$ (11,439)	\$ 9,943,191

Repurchase of Senior Subordinated Notes due 2021 - On October 13, 2016, the Company announced a cash tender offer for any and all of its outstanding 2021 Notes. On October 27, 2016, the Company redeemed a principal amount of approximately \$158 million in 2021 Notes outstanding for total consideration of \$1,060.50 (plus accrued and unpaid interest) for each \$1,000 aggregate principal amount. The total consideration included an early tender premium of \$30.00 per \$1,000 principal amount of 2021 Notes payable only with respect to each note validly tendered and not revoked on or before October 26, 2016. On November 28, 2016, pursuant to the terms of the indenture governing the 2021 Notes, the Company redeemed the remaining principal of \$342 million in 2021 Notes outstanding at a redemption price of 105.625% of the principal amount (plus accrued and unpaid interest).

The Company recorded refinancing costs of \$31.9 million during the thirty-nine week period ended July 1, 2017 representing debt issuance costs expensed in conjunction with the redemption of the 2021 Notes. The costs consisted of the premium of \$28.8 million paid to redeem the \$500 million of 2021 Notes and the write-off of \$3.1 million in unamortized debt issuance costs.

Incremental Term Loan Assumption Agreement - On October 14, 2016, the Company entered into an Incremental Term Loan Assumption Agreement (the "Assumption Agreement") with Credit Suisse AG, as administrative agent and collateral agent, and as a lender, in connection with the 2016 Term Loans. The Assumption Agreement, among other things, provides for (i) additional tranche F term loans in an aggregate principal amount equal to \$650 million, which were fully drawn on October 14, 2016 (the "Initial Additional Tranche F Term Loans"), and (ii) additional delayed draw tranche F term

loans in an aggregate principal amount not to exceed \$500 million, which were fully drawn on October 27, 2016 (the “Delayed Draw Additional Tranche F Term Loans,” and together with the Initial Additional Tranche F Term Loans, the “Additional Tranche F Term Loans”), the proceeds of which were used to repurchase the Company's 2021 Notes. The terms and conditions that apply to the Additional Tranche F Term Loans are substantially the same as the terms and conditions that apply to the Tranche F Term Loans under the 2016 Term Loans immediately prior to the Assumption Agreement.

The Company capitalized \$11.3 million and expensed \$0.2 million in refinancing costs during the thirty-nine week period ended July 1, 2017 associated with the Assumption Agreement.

Issuance of Senior Subordinated Notes - On March 1, 2017, TransDigm Inc. issued \$300 million in aggregate principal amount of its 2025 Notes at an issue price of 101.5% of the principal amount. The new notes offered were an additional issuance to our existing \$450 million of 2025 Notes. The new notes offered, together with the existing 2025 Notes, are treated as a single class for all purposes under the indenture. The 2025 Notes bear interest at the rate of 6.5% per annum, which accrues from November 15, 2016 and is payable semiannually in arrears on May 15 and November 15 of each year, commencing on May 15, 2017. The 2025 Notes mature on May 15, 2025, unless earlier redeemed or repurchased, and are subject to the terms and conditions set forth in the indentures governing the 2025 Notes.

The 2025 Notes are subordinated to all of TransDigm’s existing and future senior debt, rank equally with all of its existing and future senior subordinated debt and rank senior to all of its future debt that is expressly subordinated to the 2025 Notes. The 2025 Notes are guaranteed on a senior subordinated unsecured basis by TD Group and its 100% owned domestic subsidiaries named in the 2025 indentures. The guarantees of the 2025 Notes are subordinated to all of the guarantors’ existing and future senior debt, rank equally with all of their existing and future senior subordinated debt and rank senior to all of their future debt that is expressly subordinated to the guarantees of the 2025 Notes. The 2025 Notes are structurally subordinated to all of the liabilities of TD Group’s non-guarantor subsidiaries.

The 2025 indentures contain certain covenants that, among other things, limit the incurrence of additional indebtedness, the payment of dividends, transactions with affiliates, asset sales, acquisitions, mergers, and consolidations, liens and encumbrances, and prepayments of certain other indebtedness. The 2025 indentures contain events of default customary for agreements of their type (with customary grace periods, as applicable) and provide that, upon the occurrence of an event of default arising from certain events of bankruptcy or insolvency, all outstanding 2025 Notes of each series will become due and payable immediately without further action or notice. If any other type of event of default occurs and is continuing, then the trustee or the holders of at least 25% in principal amount of the then outstanding 2025 Notes of a particular series may declare all such notes to be due and payable immediately.

In addition to the premium of \$4.5 million recorded upon the issuance of the additional \$300 million of 2025 Notes, the Company capitalized \$0.4 million and expensed \$3.6 million in refinancing costs during the thirty-nine week period ended July 1, 2017 representing fees associated with the issuance of the additional \$300 million of 2025 Notes.

Amendment No. 2 to the Restated Credit Agreement - On March 6, 2017, TransDigm Inc., TD Group and certain subsidiaries of TransDigm entered into Amendment No. 2 to the Second Amended and Restated Credit Agreement, dated June 4, 2014, with Credit Suisse AG, as administrative agent and collateral agent (the "Agent"), and the other agents and lenders named therein. Amendment No. 2 permits, among other things, up to \$1.5 billion of dividends and share repurchases over the next twelve months. If any portion of the \$1.5 billion is not used for dividends or share repurchases over the next twelve months, such amount (not to exceed \$500 million) may be used to repurchase stock at any time thereafter. Amendment No. 2 also increases the general investment basket to the greater of \$400 million and 8% of consolidated total assets.

The Company capitalized \$10.3 million and expensed \$0.2 million in refinancing costs during the thirty-nine week period ended July 1, 2017 representing fees associated with Amendment No. 2.

9. INCOME TAXES

At the end of each reporting period, TD Group makes an estimate of its annual effective income tax rate. The estimate used in the year-to-date period may change in subsequent periods. During the thirteen week periods ended July 1, 2017 and July 2, 2016, the effective tax rate was 28.1% and 17.3%, respectively. During the thirty-nine week periods ended July 1, 2017 and July 2, 2016, the effective income tax rate was 24.7% and 22.8%, respectively. The Company's higher effective tax rate for the thirteen week and thirty-nine week periods ended July 1, 2017 was primarily due to a smaller discrete adjustment from excess tax benefits for share-based payments. The Company’s effective tax rate for these periods was less than the Federal statutory tax rate primarily due to excess tax benefits from share based payments, the domestic manufacturing deduction and foreign earnings taxed at rates lower than the U.S. statutory rate.

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction, various state and local jurisdictions as well as foreign jurisdictions located in Belgium, Canada, China, France, Germany, Hong Kong, Hungary, Malaysia, Mexico, Norway, Singapore, Sri Lanka, Sweden and the United Kingdom. The Company is no longer subject to U.S.

federal examinations for years before fiscal 2014. The Company is currently under U.S. federal examination for fiscal 2014. In addition, the Company is subject to state income tax examinations for fiscal years 2009 and later.

At July 1, 2017 and September 30, 2016, TD Group had \$7.0 million and \$8.7 million in unrecognized tax benefits, the recognition of which would have an effect of approximately \$6.8 million and \$8.5 million on the effective tax rate at July 1, 2017 and September 30, 2016, respectively. The Company believes the tax positions that comprise the unrecognized tax benefits will be reduced by approximately \$0.7 million over the next 12 months. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in income tax expense.

10. FAIR VALUE MEASUREMENTS

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. The fair value hierarchy has three levels based on the reliability of the inputs used to determine fair value. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability. A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following summarizes the carrying amounts and fair values of financial instruments (in thousands):

	Level	July 1, 2017		September 30, 2016	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Assets:					
Cash and cash equivalents	1	\$ 970,556	\$ 970,556	\$ 1,586,994	\$ 1,586,994
Interest rate cap agreements ⁽¹⁾	2	8,933	8,933	4,232	4,232
Interest rate swap agreements ⁽¹⁾	2	2,470	2,470	—	—
Liabilities:					
Interest rate swap agreements ⁽²⁾	2	22,131	22,131	29,191	29,191
Interest rate swap agreements ⁽³⁾	2	13,882	13,882	53,824	53,824
Short-term borrowings - trade receivable securitization facility ⁽⁴⁾	1	199,978	199,978	199,771	199,771
<i>Long-term debt, including current portion:</i>					
Term loans ⁽⁴⁾	2	6,320,339	6,367,110	5,234,607	5,284,037
2020 Notes ⁽⁴⁾	1	546,493	558,250	545,701	566,500
2021 Notes ⁽⁴⁾	1	—	—	496,859	530,000
2022 Notes ⁽⁴⁾	1	1,142,699	1,178,750	1,141,619	1,214,688
2024 Notes ⁽⁴⁾	1	1,191,664	1,233,000	1,190,782	1,266,000
2025 Notes ⁽⁴⁾	1	750,153	767,519	445,856	469,125
2026 Notes ⁽⁴⁾	1	940,942	961,875	940,412	985,625

(1) Included in other non-current assets on the condensed consolidated balance sheet.

(2) Included in accrued liabilities on the condensed consolidated balance sheet.

(3) Included in other non-current liabilities on the condensed consolidated balance sheet.

(4) The carrying amount of the debt instrument is presented net of the debt issuance costs in connection with the Company's adoption of ASU 2015-03. Refer to Note 8, "Debt," for gross carrying amounts.

The Company values its financial instruments using an industry standard market approach, in which prices and other relevant information are generated by market transactions involving identical or comparable assets or liabilities. No financial instruments were recognized using unobservable inputs.

Interest rate swaps were measured at fair value using quoted market prices for the swap interest rate indexes over the term of the swap discounted to present value versus the fixed rate of the contract. The interest rate caps were measured at fair value using implied volatility rates of each individual caplet and the yield curve for the related periods. The estimated fair value of the Company's term loans was based on information provided by the agent under the Company's senior secured credit facility. The estimated fair values of the Company's notes were based upon quoted market prices.

There has not been any impact to the fair value of derivative liabilities due to the Company's own credit risk. Similarly, there has not been any impact to the fair value of derivative assets based on the Company's evaluation of counterparties' credit risks.

The fair value of cash and cash equivalents, trade accounts receivable-net and accounts payable approximated book value due to the short-term nature of these instruments at July 1, 2017 and September 30, 2016.

11. DERIVATIVES AND HEDGING ACTIVITIES

The Company is exposed to, among other things, the impact of changes in interest rates in the normal course of business. The Company's risk management program is designed to manage the exposure and volatility arising from these risks, and utilizes derivative financial instruments to offset a portion of these risks. The Company uses derivative financial instruments only to the extent necessary to hedge identified business risks and does not enter into such transactions for trading purposes. The Company generally does not require collateral or other security with counterparties to these financial instruments and is therefore subject to credit risk in the event of nonperformance; however, the Company monitors credit risk and currently does not anticipate nonperformance by other parties. The Company has agreements with each of its swap and cap counterparties that contain a provision whereby if the Company defaults on the credit facility the Company could also be declared in default on its swaps and caps, resulting in an acceleration of payment under the swaps and caps.

Interest rate swap and cap agreements are used to manage interest rate risk associated with floating-rate borrowings under our credit facility. The interest rate swap and cap agreements utilized by the Company effectively modify the Company's exposure to interest rate risk by converting a portion of the Company's floating-rate debt to a fixed rate basis through the expiration date of the interest rate swap and cap agreements, thereby reducing the impact of interest rate changes on future interest expense. These agreements involve the receipt of floating rate amounts in exchange for fixed rate interest payments over the term of the agreements without an exchange of the underlying principal amount. These derivative instruments qualify as effective cash flow hedges under GAAP. For these cash flow hedges, the effective portion of the gain or loss from the financial instruments was initially reported as a component of accumulated other comprehensive loss in stockholders' deficit and subsequently reclassified into earnings in the same line as the hedged item in the same period or periods during which the hedged item affected earnings.

The following table summarizes the Company's interest rate swap agreements:

Aggregate Notional Amount (in millions)	Start Date	End Date	Related Debt	Conversion of Related Variable Rate Debt to Fixed Rate of:
\$500	12/30/2016	12/31/2021	Tranche F Term Loans	4.9% (1.9% plus the 3% margin percentage)
\$1,000	6/28/2019	6/30/2021	Tranche F Term Loans	4.8% (1.8% plus the 3% margin percentage)
\$750	3/31/2016	6/30/2020	Tranche D Term Loans	5.8% (2.8% plus the 3% margin percentage)
\$1,000	9/30/2014	6/30/2019	Tranche C Term Loans	5.4% (2.4% plus the 3% margin percentage)

The following table summarizes the Company's interest rate cap agreements:

Aggregate Notional Amount (in millions)	Start Date	End Date	Related Debt	Offsets Variable Rate Debt Attributable to Fluctuations Above:
\$400	12/30/2016	12/31/2021	Tranche F Term Loans	Three month LIBO rate of 2.5%
\$400	6/30/2016	6/30/2021	Tranche F Term Loans	Three month LIBO rate of 2.0%
\$750	9/30/2015	6/30/2020	Tranche E Term Loans	Three month LIBO rate of 2.5%

All interest rate swap and cap agreements are recognized in our condensed consolidated balance sheets at fair value. In accordance with GAAP, certain derivative asset and liability balances are offset where master netting agreements provide for the legal right of setoff. For classification purposes, we record the net fair value of each type of derivative position that is expected to settle in less than one year with each counterparty as a net current asset or liability and each type of long-term position as a net long-term asset or liability. The amounts shown in the table below represent the gross amounts of recognized assets and liabilities, the amounts offset in the condensed consolidated balance sheet and the net amounts of assets and liabilities presented therein.

	July 1, 2017		September 30, 2016	
	Asset	Liability	Asset	Liability
Interest rate cap agreements	\$ 8,933	\$ —	\$ 4,232	\$ —
Interest rate swap agreements	6,783	(40,326)	—	(83,015)
Total	15,716	(40,326)	4,232	(83,015)
Effect of counterparty netting	(4,313)	4,313	—	—
Net derivatives as classified in the balance sheet ⁽¹⁾	\$ 11,403	\$ (36,013)	\$ 4,232	\$ (83,015)

(1) Refer to Note 10, "Fair Value Measurements," for the condensed consolidated balance sheet classification of our interest rate swap and cap agreements.

Based on the fair value amounts of the interest rate swap and cap agreements determined as of July 1, 2017, the estimated net amount of existing gains and losses and caplet amortization expected to be reclassified into interest expense within the next twelve months is approximately \$26.1 million.

Effective September 30, 2016, the Company redesignated the interest rate cap agreements related to the \$400 million and the \$750 million aggregate notional amount with cap rates of 2.0% and 2.5%, respectively, based on the expected probable cash flows associated with the 2016 term loans and 2015 term loans in consideration of the Company's ability to select one-month, two-month, three-month, or six-month LIBO rate set forth in the Credit Agreement. Accordingly, amounts previously recorded as a component of accumulated other comprehensive loss in stockholder's deficit amortized into interest expense was \$2.9 million for the thirty-nine week period ended July 1, 2017. The accumulated other comprehensive loss to be reclassified into interest expense over the remaining term of the cap agreements is \$11.7 million with a related tax benefit of \$4.4 million as of July 1, 2017.

On July 5, 2017, the Company entered into two interest rate cap agreements and three interest rate swap agreements. The agreements each have an effective date of June 30, 2020 and mature on June 30, 2022. The two interest rate cap agreements will offset the variable interest rates on the Company's floating rate debt exposures based on an aggregate notional amount of \$750 million. These interest rate cap agreements offset the variability in expected future cash flows on the Company's variable rate debt attributable to fluctuations above the three month LIBO rate of 2.5% beginning June 30, 2020 through June 30, 2022. The three interest rate swap agreements hedge the variable interest rates on the Company's floating rate debt exposures for a fixed rate based on an aggregate notional amount of \$750 million beginning June 30, 2020 through June 30, 2022. These interest rate swap agreements convert the variable interest rate on the aggregate notional amount of the Company's floating rate debt to a fixed rate of 5.5% (2.5% plus the 3% margin percentage) over the term of the interest rate swap agreements.

12. SEGMENTS

The Company's businesses are organized and managed in three reporting segments: Power & Control, Airframe and Non-aviation.

The Power & Control segment includes operations that primarily develop, produce and market systems and components that predominately provide power to or control power of the aircraft utilizing electronic, fluid, power and mechanical motion control technologies. Major product offerings include mechanical/electro-mechanical actuators and controls, ignition systems and engine technology, specialized pumps and valves, power conditioning devices, specialized AC/DC electric motors and generators, databus and power controls, high performance hoists, winches and lifting devices, and cargo loading and handling systems. Primary customers of this segment are engine and power system and subsystem suppliers, airlines, third party maintenance suppliers, military buying agencies and repair depots. Products are sold in the original equipment and aftermarket market channels.

The Airframe segment includes operations that primarily develop, produce and market systems and components that are used in non-power airframe applications utilizing airframe and cabin structure technologies. Major product offerings include engineered latching and locking devices, rods and locking devices, cockpit security components and systems, aircraft audio systems, specialized lavatory components, seat belts and safety restraints, engineered interior surfaces and related components, lighting and control technology, military personnel parachutes, and cargo delivery systems. Primary customers of this segment are airframe manufacturers and cabin system suppliers and subsystem suppliers, airlines, third party maintenance suppliers, military buying agencies and repair depots. Products are sold in the original equipment and aftermarket market channels.

The Non-aviation segment includes operations that primarily develop, produce and market products for non-aviation markets. Major product offerings include seat belts and safety restraints for ground transportation applications, mechanical/electro-mechanical actuators and controls for space applications, and refueling systems for heavy equipment used in mining, construction and other industries. Primary customers of this segment are off-road vehicle suppliers and subsystem

suppliers, child restraint system suppliers, satellite and space system suppliers and manufacturers of heavy equipment used in mining, construction and other industries.

The primary measurement used by management to review and assess the operating performance of each segment is EBITDA As Defined. The Company defines EBITDA As Defined as earnings before interest, taxes, depreciation and amortization plus certain non-operating items including refinancing costs, acquisition-related costs, transaction-related costs and non-cash compensation charges incurred in connection with the Company's stock incentive plans. Acquisition-related costs represent accounting adjustments to inventory associated with acquisitions of businesses and product lines that were charged to cost of sales when the inventory was sold; costs incurred to integrate acquired businesses and product lines into the Company's operations, facility relocation costs and other acquisition-related costs; transaction related costs comprising deal fees; legal, financial and tax diligence expenses and valuation costs that are required to be expensed as incurred and other acquisition accounting adjustments.

EBITDA As Defined is not a measurement of financial performance under GAAP. Although the Company uses EBITDA As Defined to assess the performance of its business and for various other purposes, the use of this non-GAAP financial measure as an analytical tool has limitations, and it should not be considered in isolation or as a substitute for analysis of the Company's results of operations as reported in accordance with GAAP.

The Company's segments are reported on the same basis used internally for evaluating performance and for allocating resources. The accounting policies for each segment are the same as those described in the summary of significant accounting policies in the Company's consolidated financial statements. Intersegment sales and transfers are recorded at values based on market prices, which creates intercompany profit on intersegment sales or transfers that is eliminated in consolidation. Intersegment sales were immaterial for the periods presented below. Certain corporate-level expenses are allocated to the operating segments.

The following table presents net sales by reportable segment (in thousands):

	Thirteen Week Periods Ended		Thirty-Nine Week Periods Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
Net sales to external customers				
Power & Control	\$ 504,271	\$ 402,137	\$ 1,425,105	\$ 1,154,837
Airframe	372,883	370,414	1,086,560	1,067,301
Non-aviation	30,513	25,141	83,252	74,050
	<u>\$ 907,667</u>	<u>\$ 797,692</u>	<u>\$ 2,594,917</u>	<u>\$ 2,296,188</u>

The following table reconciles EBITDA As Defined by segment to consolidated income before income taxes (in thousands):

	Thirteen Week Periods Ended		Thirty-Nine Week Periods Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
EBITDA As Defined				
Power & Control	\$ 261,025	\$ 197,912	\$ 712,338	\$ 552,558
Airframe	183,478	185,333	536,905	520,878
Non-aviation	9,397	6,853	26,975	19,846
Total segment EBITDA As Defined	<u>453,900</u>	<u>390,098</u>	<u>1,276,218</u>	<u>1,093,282</u>
Unallocated corporate expenses	11,017	6,221	27,170	21,387
Total Company EBITDA As Defined	<u>442,883</u>	<u>383,877</u>	<u>1,249,048</u>	<u>1,071,895</u>
Depreciation and amortization expense	36,924	29,564	109,851	85,101
Interest expense - net	152,227	120,812	446,073	344,083
Acquisition-related costs	6,192	9,849	32,864	34,696
Stock compensation expense	11,580	11,371	32,707	33,819
Refinancing costs	345	15,654	35,936	15,654
Other, net	547	2,451	2,615	(480)
Income before income taxes	<u>\$ 235,068</u>	<u>\$ 194,176</u>	<u>\$ 589,002</u>	<u>\$ 559,022</u>

The following table presents total assets by segment (in thousands):

	July 1, 2017	September 30, 2016
Total assets		
Power & Control	\$ 5,261,159	\$ 5,184,303
Airframe	4,024,809	3,922,532
Non-aviation	141,686	131,319
Corporate	888,782	1,488,123
	<u>\$ 10,316,436</u>	<u>\$ 10,726,277</u>

The Company's sales principally originate from the United States, and the Company's long-lived assets are principally located in the United States.

13. ACCUMULATED OTHER COMPREHENSIVE LOSS

The following table presents the components of accumulated other comprehensive loss, net of taxes, for the thirty-nine week period ended July 1, 2017 (in thousands):

	Unrealized (loss) gain on derivatives designated and qualifying as cash flow hedges ⁽¹⁾	Defined benefit pension plan activity	Currency translation adjustment	Total
Balance at September 30, 2016	\$ (61,140)	\$ (24,297)	\$ (64,350)	\$ (149,787)
Current-period other comprehensive gain	30,770	—	4,523	35,293
Amounts reclassified from AOCI related to interest rate cap agreements	1,798	—	—	1,798
Balance at July 1, 2017	<u>\$ (28,572)</u>	<u>\$ (24,297)</u>	<u>\$ (59,827)</u>	<u>\$ (112,696)</u>

(1) Unrealized gain (loss) represents interest rate swap and cap agreements, net of taxes of \$5,002 and \$4,274 for the thirteen week periods ended July 1, 2017 and July 2, 2016 and \$(19,425) and \$9,749 for the thirty-nine week periods ended July 1, 2017 and July 2, 2016, respectively.

A summary of reclassifications out of accumulated other comprehensive loss for the thirty-nine week period ended July 1, 2017 is provided below (in thousands):

Description of reclassifications out of accumulated other comprehensive loss	Amount reclassified
Amortization from redesignated interest rate cap agreements ⁽¹⁾	\$ 2,870
Deferred tax benefit from redesignated interest rate cap agreements	(1,072)
Losses reclassified into earnings, net of tax	<u>\$ 1,798</u>

(1) This component of accumulated other comprehensive loss is included in interest expense (see Note 11, "Derivatives and Hedging Activity," for additional information).

14. SPECIAL DIVIDEND AND DIVIDEND EQUIVALENT PAYMENTS

On October 14, 2016, the Company's Board of Directors authorized and declared a special cash dividend of \$24.00 on each outstanding share of common stock and cash dividend equivalent payments on options granted under its stock option plans. The record date for the special dividend was October 24, 2016, and the payment date for the dividend was November 1, 2016. The total cash payment related to the special dividend and related dividend equivalent payments in the first quarter of fiscal 2017 was approximately \$1,280.1 million and \$76.4 million, respectively. For the thirty-nine week period ended July 1, 2017, dividend equivalent payments related to dividends declared in fiscal 2013 and fiscal 2014 totaled \$19.5 million.

15. SUPPLEMENTAL GUARANTOR INFORMATION

TransDigm's 2020 Notes, 2022 Notes, 2024 Notes, 2025 Notes and 2026 Notes are jointly and severally guaranteed, on a senior subordinated basis, by TD Group and TransDigm Inc.'s 100% Domestic Restricted Subsidiaries, as defined in the Indentures. The following supplemental condensed consolidating financial information presents, in separate columns, the balance sheets of the Company as of July 1, 2017 and September 30, 2016 and its statements of income and comprehensive income and cash flows for the thirty-nine week periods ended July 1, 2017 and July 2, 2016 for

(i) TransDigm Group on a parent only basis with its investment in subsidiaries recorded under the equity method, (ii) TransDigm Inc. including its directly owned operations and non-operating entities, (iii) the Subsidiary Guarantors on a combined basis, (iv) Non-Guarantor Subsidiaries and (v) the Company on a consolidated basis.

Separate financial statements of TransDigm Inc. are not presented because TransDigm Inc.'s 2020 Notes, 2022 Notes, 2024 Notes, 2025 Notes and 2026 Notes are fully and unconditionally guaranteed on a senior subordinated basis by TD Group and all existing 100% owned domestic subsidiaries of TransDigm Inc. and because TD Group has no significant operations or assets separate from its investment in TransDigm Inc.

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF JULY 1, 2017
(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	Subsidiary Guarantors	Non- Guarantor Subsidiaries	Eliminations	Total Consolidated
ASSETS						
CURRENT ASSETS:						
Cash and cash equivalents	\$ 776	\$ 768,641	\$ 5,648	\$ 195,491	\$ —	\$ 970,556
Trade accounts receivable - Net	—	—	35,254	614,086	(43,335)	606,005
Inventories - Net	—	47,591	575,306	122,782	(2,100)	743,579
Prepaid expenses and other	—	34,439	21,832	10,619	—	66,890
Total current assets	776	850,671	638,040	942,978	(45,435)	2,387,030
INVESTMENT IN SUBSIDIARIES AND INTERCOMPANY BALANCES	(1,896,221)	10,356,366	7,230,034	856,783	(16,546,962)	—
PROPERTY, PLANT AND EQUIPMENT - NET	—	16,133	262,445	47,747	—	326,325
GOODWILL	—	62,295	5,040,313	698,010	—	5,800,618
OTHER INTANGIBLE ASSETS - NET	—	27,970	1,458,848	265,796	—	1,752,614
OTHER	—	15,736	25,941	8,172	—	49,849
TOTAL ASSETS	\$ (1,895,445)	\$ 11,329,171	\$ 14,655,621	\$ 2,819,486	\$ (16,592,397)	\$ 10,316,436
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY						
CURRENT LIABILITIES:						
Current portion of long-term debt	\$ —	\$ 64,090	\$ —	\$ —	\$ —	\$ 64,090
Short-term borrowings - trade receivable securitization facility	—	—	—	199,978	—	199,978
Accounts payable	—	13,638	140,968	35,406	(42,932)	147,080
Accrued liabilities	—	157,259	109,445	52,865	—	319,569
Total current liabilities	—	234,987	250,413	288,249	(42,932)	730,717
LONG-TERM DEBT	—	10,828,200	—	—	—	10,828,200
DEFERRED INCOME TAXES	—	436,797	(544)	63,212	—	499,465
OTHER NON-CURRENT LIABILITIES	—	41,558	74,965	36,976	—	153,499
Total liabilities	—	11,541,542	324,834	388,437	(42,932)	12,211,881
STOCKHOLDERS' (DEFICIT) EQUITY	(1,895,445)	(212,371)	14,330,787	2,431,049	(16,549,465)	(1,895,445)
TOTAL LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY	\$ (1,895,445)	\$ 11,329,171	\$ 14,655,621	\$ 2,819,486	\$ (16,592,397)	\$ 10,316,436

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF SEPTEMBER 30, 2016
(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	Subsidiary Guarantors	Non- Guarantor Subsidiaries	Eliminations	Total Consolidated
ASSETS						
CURRENT ASSETS:						
Cash and cash equivalents	\$ 13,560	\$ 1,421,251	\$ 8,808	\$ 143,375	\$ —	\$ 1,586,994
Trade accounts receivable - Net	—	—	26,210	561,124	(10,995)	576,339
Inventories - Net	—	42,309	586,648	96,229	(1,175)	724,011
Prepaid expenses and other	—	8,209	27,381	7,763	—	43,353
Total current assets	13,560	1,471,769	649,047	808,491	(12,170)	2,930,697
INVESTMENT IN SUBSIDIARIES AND INTERCOMPANY BALANCES	(665,050)	9,671,019	6,182,809	861,647	(16,050,425)	—
PROPERTY, PLANT AND EQUIPMENT - NET	—	15,991	250,544	44,045	—	310,580
GOODWILL	—	68,593	4,952,950	657,909	—	5,679,452
OTHER INTANGIBLE ASSETS - NET	—	24,801	1,483,285	256,257	—	1,764,343
OTHER	—	10,319	24,063	6,823	—	41,205
TOTAL ASSETS	\$ (651,490)	\$ 11,262,492	\$ 13,542,698	\$ 2,635,172	\$ (16,062,595)	\$ 10,726,277
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY						
CURRENT LIABILITIES:						
Current portion of long-term debt	\$ —	\$ 52,645	\$ —	\$ —	\$ —	\$ 52,645
Short-term borrowings - trade receivable securitization facility	—	—	—	199,771	—	199,771
Accounts payable	—	15,347	120,455	31,560	(11,287)	156,075
Accrued liabilities	—	159,909	123,646	60,557	—	344,112
Total current liabilities	—	227,901	244,101	291,888	(11,287)	752,603
LONG-TERM DEBT	—	9,943,191	—	—	—	9,943,191
DEFERRED INCOME TAXES	—	434,013	(544)	58,786	—	492,255
OTHER NON-CURRENT LIABILITIES	—	82,677	70,124	36,917	—	189,718
Total liabilities	—	10,687,782	313,681	387,591	(11,287)	11,377,767
STOCKHOLDERS' (DEFICIT) EQUITY	(651,490)	574,710	13,229,017	2,247,581	(16,051,308)	(651,490)
TOTAL LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY	\$ (651,490)	\$ 11,262,492	\$ 13,542,698	\$ 2,635,172	\$ (16,062,595)	\$ 10,726,277

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF INCOME AND COMPREHENSIVE INCOME
FOR THE THIRTY-NINE WEEK PERIOD ENDED JULY 1, 2017
(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	Subsidiary Guarantors	Non- Guarantor Subsidiaries	Eliminations	Total Consolidated
NET SALES	\$ —	\$ 102,467	\$ 2,168,529	\$ 389,347	\$ (65,426)	\$ 2,594,917
COST OF SALES	—	56,826	903,475	242,003	(64,501)	1,137,803
GROSS PROFIT	—	45,641	1,265,054	147,344	(925)	1,457,114
SELLING AND ADMINISTRATIVE EXPENSES	69	73,480	198,230	43,089	—	314,868
AMORTIZATION OF INTANGIBLE ASSETS	—	635	64,156	6,444	—	71,235
(LOSS) INCOME FROM OPERATIONS	(69)	(28,474)	1,002,668	97,811	(925)	1,071,011
INTEREST EXPENSE (INCOME) - NET	—	452,867	(816)	(5,978)	—	446,073
REFINANCING COSTS	—	35,936	—	—	—	35,936
EQUITY IN INCOME OF SUBSIDIARIES	(443,498)	(984,479)	—	—	1,427,977	—
INCOME BEFORE INCOME TAXES	443,429	467,202	1,003,484	103,789	(1,428,902)	589,002
INCOME TAX PROVISION	—	23,704	116,846	5,023	—	145,573
NET INCOME	\$ 443,429	\$ 443,498	\$ 886,638	\$ 98,766	\$ (1,428,902)	\$ 443,429
OTHER COMPREHENSIVE INCOME, NET OF TAX	37,091	32,569	16,985	6,753	(56,307)	37,091
TOTAL COMPREHENSIVE INCOME	\$ 480,520	\$ 476,067	\$ 903,623	\$ 105,519	\$ (1,485,209)	\$ 480,520

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF INCOME AND COMPREHENSIVE INCOME
FOR THE THIRTY-NINE WEEK PERIOD ENDED JULY 2, 2016

(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	Subsidiary Guarantors	Non- Guarantor Subsidiaries	Eliminations	Total Consolidated
NET SALES	\$ —	\$ 95,373	\$ 1,886,907	\$ 329,775	\$ (15,867)	\$ 2,296,188
COST OF SALES	—	53,973	810,289	204,049	(15,867)	1,052,444
GROSS PROFIT	—	41,400	1,076,618	125,726	—	1,243,744
SELLING AND ADMINISTRATIVE EXPENSES	—	64,091	164,846	42,574	—	271,511
AMORTIZATION OF INTANGIBLE ASSETS	—	1,089	43,828	8,557	—	53,474
(LOSS) INCOME FROM OPERATIONS	—	(23,780)	867,944	74,595	—	918,759
INTEREST EXPENSE (INCOME) - NET	—	354,524	(751)	(9,690)	—	344,083
REFINANCING COSTS	—	15,654	—	—	—	15,654
EQUITY IN INCOME OF SUBSIDIARIES	(431,746)	(691,148)	—	—	1,122,894	—
INCOME BEFORE INCOME TAXES	431,746	297,190	868,695	84,285	(1,122,894)	559,022
INCOME TAX (BENEFIT) PROVISION	—	(134,556)	259,383	2,449	—	127,276
NET INCOME	\$ 431,746	\$ 431,746	\$ 609,312	\$ 81,836	\$ (1,122,894)	\$ 431,746
OTHER COMPREHENSIVE (LOSS) INCOME, NET OF TAX	(41,531)	(1,231)	(449)	(34,389)	36,069	(41,531)
TOTAL COMPREHENSIVE INCOME	\$ 390,215	\$ 430,515	\$ 608,863	\$ 47,447	\$ (1,086,825)	\$ 390,215

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE THIRTY-NINE WEEK PERIOD ENDED JULY 1, 2017
(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	Subsidiary Guarantors	Non- Guarantor Subsidiaries	Eliminations	Total Consolidated
NET CASH (USED IN) PROVIDED BY OPERATING ACTIVITIES	\$ (69)	\$ (529,423)	\$ 1,111,978	\$ (27,965)	\$ 695	\$ 555,216
INVESTING ACTIVITIES:						
Capital expenditures	—	(1,479)	(50,480)	(3,712)	—	(55,671)
Payments made in connection with acquisitions - see Note 3	—	(215,202)	—	—	—	(215,202)
Net cash used in investing activities	—	(216,681)	(50,480)	(3,712)	—	(270,873)
FINANCING ACTIVITIES:						
Intercompany activities	1,735,094	(751,701)	(1,064,658)	81,960	(695)	—
Proceeds from exercise of stock options	18,046	—	—	—	—	18,046
Special dividend and dividend equivalent payments	(1,376,034)	—	—	—	—	(1,376,034)
Treasury stock purchased	(389,821)	—	—	—	—	(389,821)
Proceeds from 2017 term loans, net	—	1,132,755	—	—	—	1,132,755
Repayment on term loans	—	(48,453)	—	—	—	(48,453)
Cash tender and redemption of senior subordinated notes due 2021, including premium	—	(528,847)	—	—	—	(528,847)
Proceeds from additional senior subordinated notes due 2025, net	—	300,517	—	—	—	300,517
Other	—	(10,777)	—	—	—	(10,777)
Net cash (used in) provided by financing activities	(12,715)	93,494	(1,064,658)	81,960	(695)	(902,614)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	—	—	—	1,833	—	1,833
(DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(12,784)	(652,610)	(3,160)	52,116	—	(616,438)
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	13,560	1,421,251	8,808	143,375	—	1,586,994
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 776	\$ 768,641	\$ 5,648	\$ 195,491	\$ —	\$ 970,556

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE THIRTY-NINE WEEK PERIOD ENDED JULY 2, 2016
(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	Subsidiary Guarantors	Non- Guarantor Subsidiaries	Eliminations	Total Consolidated
NET CASH (USED IN) PROVIDED BY OPERATING ACTIVITIES	\$ —	\$ (169,940)	\$ 635,519	\$ 21,034	\$ (4,437)	\$ 482,176
INVESTING ACTIVITIES:						
Capital expenditures	—	(1,303)	(21,327)	(7,377)	—	(30,007)
Payments made in connection with acquisitions - see Note 3	—	(1,143,006)	—	—	—	(1,143,006)
Net cash used in investing activities	—	(1,144,309)	(21,327)	(7,377)	—	(1,173,013)
FINANCING ACTIVITIES:						
Intercompany activities	184,135	391,097	(597,260)	17,591	4,437	—
Proceeds from exercise of stock options	25,320	—	—	—	—	25,320
Dividend equivalent payments	(3,000)	—	—	—	—	(3,000)
Treasury stock repurchased	(207,755)	—	—	—	—	(207,755)
Proceeds from 2016 term loans, net	—	1,712,244	—	—	—	1,712,244
Repayment on term loans	—	(821,140)	—	—	—	(821,140)
Proceeds from senior subordinated notes due 2025, net	—	939,935	—	—	—	939,935
Other	—	(2,309)	—	—	—	(2,309)
Net cash (used in) provided by financing activities	(1,300)	2,219,827	(597,260)	17,591	4,437	1,643,295
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	—	—	—	204	—	204
(DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(1,300)	905,578	16,932	31,452	—	952,662
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	1,500	659,365	7,911	45,257	—	714,033
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 200	\$ 1,564,943	\$ 24,843	\$ 76,709	\$ —	\$ 1,666,695

16. SUBSEQUENT EVENTS

In August 2017, the Company amended the trade receivable securitization facility to extend the maturity date to July 31, 2018. In connection with the Company's amendment of the trade receivable securitization facility, the Company increased the borrowing capacity from \$250 million to \$300 million. As of July 1, 2017, the Company has borrowed \$200 million under the Securitization Facility.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-looking Statements

The following discussion of the Company's financial condition and results of operations should be read together with TD Group's consolidated financial statements and the related notes included elsewhere in this Quarterly Report on Form 10-Q. References in this section to "TransDigm," "the Company," "we," "us," "our," and similar references refer to TD Group, TransDigm Inc. and TransDigm Inc.'s subsidiaries, unless the context otherwise indicates.

This Quarterly Report on Form 10-Q includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including, in particular, the statements about the Company's plans, strategies and prospects under this section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations." When used in this Quarterly Report on Form 10-Q, the words "believe," "may," "will," "should," "expect," "intend," "plan," "predict," "anticipate," "estimate" or "continue" and other words and terms of similar meaning are intended to identify forward-looking statements. Although the Company believes that its plans, intentions and expectations reflected in or suggested by such forward-looking statements are reasonable, such forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from the forward-looking statements made in this report. Many such factors are outside the control of the Company. Consequently, such forward-looking statements should be regarded solely as our current plans, estimates and beliefs. The Company does not undertake, and specifically declines, any obligation, to publicly release the results of any revisions to these forward-looking statements that may be made to reflect any future events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events. All forward-looking statements attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by these cautionary statements.

Important factors that could cause actual results to differ materially from the forward-looking statements made in this Quarterly Report on Form 10-Q include but are not limited to: the sensitivity of our business to the number of flight hours that our customers' planes spend aloft and our customers' profitability, both of which are affected by general economic conditions; future terrorist attacks; cyber-security threats and natural disasters; our reliance on certain customers; the U.S. defense budget and risks associated with being a government supplier; failure to maintain government or industry approvals; failure to complete or successfully integrate acquisitions; our substantial indebtedness; potential environmental liabilities; increases in raw material costs, taxes and labor costs that cannot be recovered in product pricing; risks and costs associated with our international sales and operations; and other factors. Please refer to the other information included in this Quarterly Report on Form 10-Q and to Item 1A of the Annual Report on Form 10-K for additional information regarding the foregoing factors that may affect our business.

Overview

We believe we are a leading global designer, producer and supplier of highly engineered aircraft components for use on nearly all commercial and military aircraft in service today. Our business is well diversified due to the broad range of products we offer to our customers. Some of our more significant product offerings, substantially all of which are ultimately provided to end-users in the aerospace industry, include mechanical/electro-mechanical actuators and controls, ignition systems and engine technology, specialized pumps and valves, power conditioning devices, specialized AC/DC electric motors and generators, NiCad batteries and chargers, engineered latching and locking devices, rods and locking devices, engineered connectors and elastomers, databus and power controls, cockpit security components and systems, specialized cockpit displays, aircraft audio systems, specialized lavatory components, seat belts and safety restraints, engineered interior surfaces and related components, lighting and control technology, military personnel parachutes, high performance hoists, winches and lifting devices, and cargo loading, handling and delivery systems. Each of these product offerings is composed of many individual products that are typically customized to meet the needs of a particular aircraft platform or customer.

For the third quarter of fiscal 2017, we generated net sales of \$907.7 million and net income of \$169.1 million. EBITDA As Defined was \$442.9 million, or 48.8% of net sales. See the "Non-GAAP Financial Measures" section for certain information regarding EBITDA and EBITDA As Defined, including reconciliations of EBITDA and EBITDA As Defined to net income and net cash provided by operating activities.

Acquisitions

Recent acquisitions are described in Note 3, "Acquisitions" to the condensed consolidated financial statements included herein.

Results of Operations

The following table sets forth, for the periods indicated, certain operating data of the Company, including presentation of the amounts as a percentage of net sales (amounts in thousands):

	Thirteen Week Periods Ended			
	July 1, 2017	% of Sales	July 2, 2016	% of Sales
Net sales	\$ 907,667	100.0%	\$ 797,692	100.0%
Cost of sales	385,896	42.5%	354,177	44.4%
Selling and administrative expenses	110,561	12.2%	94,244	11.8%
Amortization of intangible assets	23,570	2.6%	18,629	2.3%
Income from operations	387,640	42.7%	330,642	41.4%
Interest expense, net	152,227	16.8%	120,812	15.1%
Refinancing costs	345	—%	15,654	2.0%
Income tax provision ¹	66,015	7.3%	33,554	4.2%
Net income ¹	\$ 169,053	18.6%	\$ 160,622	20.1%

¹ As a result of adopting ASU 2016-09, “Improvements to Employee Share-Based Payment Accounting” in the fourth quarter of fiscal 2016, the condensed consolidated financial statements for the thirteen week period ended July 2, 2016 were recasted where presented within this Form 10-Q to reflect the impact of this standard as if the Company had adopted as of the beginning of fiscal 2016. Therefore, approximately \$20,025 in quarter-to-date excess tax benefits as of July 2, 2016 were reclassified from a component of additional paid-in-capital to a component of the income tax provision. This resulted in a decrease of \$20,025 to our income tax provision and an increase of \$20,025 to our net income for the thirteen week period ended July 2, 2016. Refer to Note 4 of the condensed consolidated financial statements for further details of the adoption of ASU 2016-09.

	Thirty-Nine Week Periods Ended			
	July 1, 2017	% of Sales	July 2, 2016	% of Sales
Net sales	\$ 2,594,917	100.0%	\$ 2,296,188	100.0%
Cost of sales	1,137,803	43.8%	1,052,444	45.8%
Selling and administrative expenses	314,868	12.1%	271,511	11.8%
Amortization of intangible assets	71,235	2.7%	53,474	2.3%
Income from operations	1,071,011	41.3%	918,759	40.0%
Interest expense, net	446,073	17.2%	344,083	15.0%
Refinancing costs	35,936	1.4%	15,654	0.7%
Income tax provision ¹	145,573	5.6%	127,276	5.5%
Net income ¹	\$ 443,429	17.1%	\$ 431,746	18.8%

¹ As a result of adopting ASU 2016-09, “Improvements to Employee Share-Based Payment Accounting” in the fourth quarter of fiscal 2016, the condensed consolidated financial statements for the thirty-nine week period ended July 2, 2016 were recasted where presented within this Form 10-Q to reflect the impact of this standard as if the Company had adopted as of the beginning of fiscal 2016. Therefore, approximately \$37,620 in year-to-date excess tax benefits as of July 2, 2016 were reclassified from a component of additional paid-in-capital to a component of the income tax provision. This resulted in a decrease of \$37,620 to our income tax provision and an increase of \$37,620 to our net income for the thirty-nine week period ended July 2, 2016. Refer to Note 4 of the condensed consolidated financial statements for further details of the adoption of ASU 2016-09.

Changes in Results of Operations**Thirteen week period ended July 1, 2017 compared with the thirteen week period ended July 2, 2016****Total Company**

- **Net Sales.** Net organic sales and acquisition sales and the related dollar and percentage changes for the thirteen week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirteen Week Periods Ended		Change	% Change Total Sales
	July 1, 2017	July 2, 2016		
Organic sales	\$ 820.6	\$ 797.7	\$ 22.9	2.9%
Acquisition sales	87.1	—	87.1	10.9%
	<u>\$ 907.7</u>	<u>\$ 797.7</u>	<u>\$ 110.0</u>	<u>13.8%</u>

Organic commercial aftermarket and defense sales increased by \$15.5 million and \$9.2 million, or 5.2% and 4.0%, respectively. Partially offsetting these increases was a decrease in organic commercial OEM sales of \$3.6 million, or 1.5%, for the quarter ended July 1, 2017 compared to the quarter ended July 2, 2016.

Acquisition sales represent sales of acquired businesses for the period up to one year subsequent to their acquisition dates. The amount of acquisition sales shown in the table above for the thirteen week period ended July 1, 2017 was attributable to the acquisitions of DDC and Y&F/Tactair in fiscal year 2016 and Schroth and the Third Quarter 2017 Acquisitions in fiscal year 2017.

- **Cost of Sales and Gross Profit.** Cost of sales increased by \$31.7 million, or 8.9%, to \$385.9 million for the thirteen week period ended July 1, 2017 compared to \$354.2 million for the thirteen week period ended July 2, 2016. Cost of sales and the related percentage of total sales for the thirteen week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirteen Week Periods Ended		Change	% Change
	July 1, 2017	July 2, 2016		
Cost of sales - excluding costs below	\$ 382.0	\$ 349.8	\$ 32.2	9.2 %
% of total sales	42.1%	43.9%		
Inventory purchase accounting adjustments	1.4	1.3	0.1	7.7 %
% of total sales	0.2%	0.2%		
Acquisition integration costs	1.3	2.0	(0.7)	(35.0)%
% of total sales	0.1%	0.3%		
Stock compensation expense	1.2	1.1	0.1	9.1 %
% of total sales	0.1%	0.1%		
Total cost of sales	<u>\$ 385.9</u>	<u>\$ 354.2</u>	<u>\$ 31.7</u>	<u>8.9 %</u>
% of total sales	<u>42.5%</u>	<u>44.4%</u>		
Gross profit	<u>\$ 521.8</u>	<u>\$ 443.5</u>	<u>\$ 78.3</u>	<u>17.7 %</u>
Gross profit percentage	<u>57.5%</u>	<u>55.6%</u>		

The net increase in the dollar amount of cost of sales during the thirteen week period ended July 1, 2017 was primarily due to increased volume associated with the sales from acquisitions and organic sales growth from the commercial aftermarket and defense markets. This increase due to volume was slightly offset by lower acquisition integration costs as shown in the table above.

Gross profit as a percentage of sales increased by 1.9 percentage points to 57.5% for the thirteen week period ended July 1, 2017 from 55.6% for the thirteen week period ended July 2, 2016. The dollar amount of gross profit increased by \$78.3 million, or 17.7%, for the quarter ended July 1, 2017 compared to the comparable quarter in the prior year due to the following items:

- Gross profit on the sales from the acquisitions indicated above (excluding acquisition-related costs) was approximately \$52.8 million for the quarter ended July 1, 2017, which represented gross profit of approximately 60.4% of the acquisition sales.
- Organic sales growth as described above, application of our three core value-driven operating strategies (obtaining profitable new business, continually improving our cost structure, and providing highly engineered value-added products to customers) and positive leverage on our fixed overhead costs spread over a higher production volume resulted in a net increase in gross profit of approximately \$25.0 million for the quarter ended July 1, 2017.

- Further increases in gross profit were due to lower acquisition integration costs of \$0.7 million slightly offset by higher inventory purchase accounting adjustments of \$0.1 million, and higher stock compensation expense of \$0.1 million for the quarter ended July 1, 2017.
- **Selling and Administrative Expenses.** Selling and administrative expenses increased by \$16.4 million to \$110.6 million, or 12.2% of sales, for the thirteen week period ended July 1, 2017 from \$94.2 million, or 11.8% of sales, for the thirteen week period ended July 2, 2016. Selling and administrative expenses and the related percentage of total sales for the thirteen week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirteen Week Periods Ended		Change	% Change
	July 1, 2017	July 2, 2016		
Selling and administrative expenses - excluding costs below	\$ 96.7	\$ 77.4	\$ 19.3	24.9 %
% of total sales	10.7%	9.7%		
Stock compensation expense	10.4	10.2	0.2	2.0 %
% of total sales	1.1%	1.3%		
Acquisition-related expenses	3.5	6.6	(3.1)	(47.0)%
% of total sales	0.4%	0.8%		
Total selling and administrative expenses	\$ 110.6	\$ 94.2	\$ 16.4	17.4 %
% of total sales	12.2%	11.8%		

The increase in the dollar amount of selling and administrative expenses during the quarter ended July 1, 2017 is primarily due to higher selling and administrative expenses relating to recent acquisitions of approximately \$15.9 million, which was approximately 18.3% of the acquisition sales and higher stock compensation expense of approximately \$0.2 million. These increases are slightly offset by lower acquisition-related expenses of \$3.1 million.

- **Amortization of Intangible Assets.** Amortization of intangible assets was \$23.6 million for the quarter ended July 1, 2017 compared to \$18.6 million in the quarter ended July 2, 2016. The increase in amortization expense of \$5.0 million was due to the amortization expense on the definite-lived intangible assets (i.e., technology and order backlog) recorded in connection with the fiscal 2016 and fiscal 2017 acquisitions.
- **Refinancing Costs.** Refinancing costs of \$0.3 million were recorded for the quarter ended July 1, 2017 representing debt issuance costs expensed in connection with the debt financing activity that occurred during the quarter ended April 1, 2017 as disclosed in Note 8, "Debt," to the condensed consolidated financial statements. Refinancing costs of \$15.7 million were recorded for the quarter ended July 2, 2016 representing debt issuance costs expensed in connection with the debt financing activity during the third quarter of 2016.
- **Interest Expense-net.** Interest expense-net includes interest on borrowings outstanding, amortization of debt issuance costs and revolving credit facility fees slightly offset by interest income. Interest expense-net increased \$31.4 million, or 26.0%, to \$152.2 million for the quarter ended July 1, 2017 from \$120.8 million for the comparable quarter last year. The net increase in interest expense-net was primarily due to an increase in the weighted average level of outstanding borrowings, which was approximately \$11.2 billion for the quarter ended July 1, 2017 and approximately \$8.7 billion for the quarter ended July 2, 2016. The increase in weighted average level of borrowings was primarily due to the issuance of the 2026 Notes for \$950 million in June 2016, the incremental term loans of \$950 million in June 2016, the additional net debt financing of \$641 million in the first fiscal quarter of 2017 and the additional 2025 Notes offering of \$300 million in the second fiscal quarter of 2017. The weighted average interest rate for cash interest payments on total borrowings outstanding at July 1, 2017 was 5.2%.
- **Income Taxes.** Income tax expense as a percentage of income before income taxes was approximately 28.1% for the quarter ended July 1, 2017 compared to 17.3% for the quarter ended July 2, 2016. The Company's higher effective tax rate for the thirteen week period ended July 1, 2017 was primarily due to a smaller discrete adjustment from the application of ASU 2016-09 (see Note 4, "Recent Accounting Pronouncements," to the condensed consolidated financial statements) as it pertains to the accounting treatment of excess tax benefits on equity compensation and foreign earnings taxed at lower rates than the U.S. statutory rate.
- **Net Income.** Net income increased \$8.4 million, or 5.2%, to \$169.0 million for the quarter ended July 1, 2017 compared to net income of \$160.6 million for the quarter ended July 2, 2016, primarily as a result of the factors referred to above.
- **Earnings per Share.** Basic and diluted earnings per share was \$3.08 for the quarter ended July 1, 2017 and \$2.88 per share for the quarter ended July 2, 2016. The increase in basic and diluted earnings per share of \$0.20 per share to \$3.08 per share is a result of the factors referred to above. In connection with the fourth quarter of fiscal 2016 adoption of ASU 2016-09, approximately \$20.0 million in quarter-to-date excess tax benefits as of July 2, 2016 were reclassified from a component

of additional paid-in-capital to a component of the income tax provision resulting in a favorable impact to basic and diluted earnings per common share of \$0.36 for the quarter ended July 2, 2016.

Business Segments

- **Segment Net Sales.** Net sales by segment for the thirteen week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirteen Week Periods Ended					
	July 1, 2017	% of Sales	July 2, 2016	% of Sales	Change	% Change
Power & Control	\$ 504.3	55.6%	\$ 402.2	50.4%	\$ 102.1	25.4%
Airframe	372.9	41.1%	370.4	46.4%	2.5	0.7%
Non-aviation	30.5	3.3%	25.1	3.2%	5.4	21.5%
	<u>\$ 907.7</u>	<u>100.0%</u>	<u>\$ 797.7</u>	<u>100.0%</u>	<u>\$ 110.0</u>	<u>13.8%</u>

Acquisition sales for the Power & Control segment totaled \$77.5 million, or an increase of 19.3%, resulting from the acquisitions of DDC and Y&F/Tactair in fiscal year 2016 and the Third Quarter 2017 Acquisitions in fiscal year 2017. Organic sales increased \$24.6 million, or an increase of 6.1%, for the thirteen week period ended July 1, 2017 compared to the thirteen week period ended July 2, 2016. The organic sales increase resulted from increases in commercial aftermarket sales (\$15.1 million, an increase of 10.6%), defense sales (\$9.2 million, an increase of 6.2%), and commercial OEM sales (\$1.0 million, an increase of 1.0%).

Acquisition sales for the Airframe segment totaled \$9.6 million, or an increase of 2.6%, resulting from the acquisition of Schroth in fiscal year 2017. Organic sales decreased \$7.1 million, or a decrease of 1.9%, for the thirteen week period ended July 1, 2017 compared to the thirteen week period ended July 2, 2016. The organic sales decrease primarily resulted from a decrease in commercial OEM sales (\$5.1 million, a decrease of 4.0%) and defense sales (\$0.8 million, a decrease of 1.1%) partially offset by an increase in commercial aftermarket sales (\$0.4 million, an increase of 0.3%).

Organic sales for the Non-aviation segment increased \$5.4 million, or 21.5%, as a result of higher commercial OEM and defense sales. There were no acquisition sales for the Non-aviation segment for the thirteen week period ended July 1, 2017.

- **EBITDA As Defined.** EBITDA As Defined by segment for the thirteen week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirteen Week Periods Ended					
	July 1, 2017	% of Segment Sales	July 2, 2016	% of Segment Sales	Change	% Change
Power & Control	\$ 261.0	51.8%	\$ 197.9	49.2%	\$ 63.1	31.9 %
Airframe	183.5	49.2%	185.3	50.0%	(1.8)	(1.0)%
Non-aviation	9.4	30.8%	6.9	27.3%	2.5	36.2 %
	<u>\$ 453.9</u>	<u>50.0%</u>	<u>\$ 390.1</u>	<u>48.9%</u>	<u>\$ 63.8</u>	<u>16.4 %</u>

EBITDA As Defined for the Power & Control segment from the acquisitions of DDC and Y&F/Tactair in fiscal year 2016 and the Third Quarter 2017 Acquisitions in fiscal year 2017 was approximately \$37.0 million for the thirteen week period ended July 1, 2017. Organic EBITDA As Defined increased approximately \$26.1 million, or an increase of 13.2%, resulting from organic sales growth, application of our three core value-driven operating strategies, and positive leverage on our fixed overhead costs spread over a higher production volume.

EBITDA as Defined for the Airframe segment from the acquisition of Schroth in fiscal year 2017 was approximately \$1.6 million for the thirteen week period ended July 1, 2017. Organic EBITDA As Defined decreased approximately \$3.4 million, or a decrease of 1.8%, as a result of lower organic commercial OEM sales and defense sales slightly offset by continued application of our three core value-driven operating strategies.

Organic EBITDA as Defined for the Non-aviation segment increased \$2.5 million, or 36.2%, as a result of the higher commercial OEM and defense sales. There was no EBITDA as Defined from acquisitions for the Non-aviation segment for the thirteen week period ended July 1, 2017.

Thirty-nine week period ended July 1, 2017 compared with the thirty-nine week period ended July 2, 2016
Total Company

- **Net Sales.** Net organic sales and acquisition sales and the related dollar and percentage changes for the thirty-nine week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirty-Nine Week Periods Ended			% Change Total Sales
	July 1, 2017	July 2, 2016	Change	
Organic sales	\$ 2,350.6	\$ 2,296.2	\$ 54.4	2.4%
Acquisition sales	244.3	—	244.3	10.6%
	<u>\$ 2,594.9</u>	<u>\$ 2,296.2</u>	<u>\$ 298.7</u>	<u>13.0%</u>

Organic defense and commercial aftermarket sales increased for the thirty-nine week period ended July 1, 2017 compared to the thirty-nine week period ended July 2, 2016 by \$34.1 million and \$20.4 million, or 5.2% and 2.3%, respectively. These increases were partially offset by a decrease in organic commercial OEM sales of \$2.3 million, or 0.3%.

Acquisition sales represent sales of acquired businesses for the period up to one year subsequent to their acquisition dates. The amount of acquisition sales shown in the table above was attributable to the acquisitions of Breeze-Eastern, DDC and Y&F/Tactair in fiscal year 2016 and Schroth and the Third Quarter 2017 Acquisitions in fiscal year 2017.

- **Cost of Sales and Gross Profit.** Cost of sales increased by \$85.4 million, or 8.1%, to \$1,137.8 million for the thirty-nine week period ended July 1, 2017 compared to \$1,052.4 million for the thirty-nine week period ended July 2, 2016. Cost of sales and the related percentage of total sales for the thirty-nine week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirty-Nine Week Periods Ended			% Change
	July 1, 2017	July 2, 2016	Change	
Cost of sales - excluding costs below	\$ 1,110.6	\$ 1,031.0	\$ 79.6	7.7 %
% of total sales	42.8%	44.9%		
Inventory purchase accounting adjustments	21.1	9.7	11.4	117.5 %
% of total sales	0.8%	0.4%		
Acquisition integration costs	2.8	7.2	(4.4)	(61.1)%
% of total sales	0.1%	0.3%		
Stock compensation expense	3.3	4.5	(1.2)	(26.7)%
% of total sales	0.1%	0.2%		
Total cost of sales	<u>\$ 1,137.8</u>	<u>\$ 1,052.4</u>	<u>\$ 85.4</u>	<u>8.1 %</u>
% of total sales	<u>43.8%</u>	<u>45.8%</u>		
Gross profit	<u>\$ 1,457.1</u>	<u>\$ 1,243.7</u>	<u>\$ 213.4</u>	<u>17.2 %</u>
Gross profit percentage	<u>56.2%</u>	<u>54.2%</u>		

The net increase in the dollar amount of cost of sales during the thirty-nine week period ended July 1, 2017 was primarily due to increased volume associated with the sales from acquisitions. There were also higher inventory purchase accounting adjustments, partially offset by lower acquisition integration costs and stock compensation expense as shown in the table above.

Gross profit as a percentage of sales increased by 2.0 percentage points to 56.2% for the thirty-nine week period ended July 1, 2017 from 54.2% for the thirty-nine week period ended July 2, 2016. The dollar amount of gross profit increased by \$213.4 million, or 17.2%, for the thirty-nine week period ended July 1, 2017 compared to the comparable thirty-nine week period in the prior year due to the following items:

- Gross profit on the sales from the acquisitions indicated above (excluding acquisition-related costs) was approximately \$145.9 million for the thirty-nine week period ended July 1, 2017, which represented gross profit of approximately 59.4% of the acquisition sales.
- Organic sales growth described above, application of our three core value-driven operating strategies (obtaining profitable new business, continually improving our cost structure, and providing highly engineered value-added products to customers) and positive leverage on our fixed overhead costs spread over a higher production volume resulted in a net increase in gross profit of approximately \$73.3 million for the thirty-nine week period ended July 1, 2017.

- Also contributing to increases in gross profit were lower acquisition integration costs of \$4.4 million and lower stock compensation expense of \$1.2 million charged to cost of sales for the thirty-nine week period ended July 1, 2017. Slightly offsetting the increases in gross profit was the impact of higher inventory purchase accounting adjustments of \$11.4 million.
- Selling and Administrative Expenses.** Selling and administrative expenses increased by \$43.4 million to \$314.9 million, or 12.1% of sales, for the thirty-nine week period ended July 1, 2017 from \$271.5 million, or 11.8% of sales, for the thirty-nine week period ended July 2, 2016. Selling and administrative expenses and the related percentage of total sales for the thirty-nine week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirty-Nine Week Periods Ended		Change	% Change
	July 1, 2017	July 2, 2016		
Selling and administrative expenses - excluding costs below	\$ 276.6	\$ 224.4	\$ 52.2	23.3 %
% of total sales	10.7%	9.8%		
Stock compensation expense	29.4	29.3	0.1	0.3 %
% of total sales	1.1%	1.3%		
Acquisition-related expenses	8.9	17.8	(8.9)	(50.0)%
% of total sales	0.3%	0.8%		
Total selling and administrative expenses	\$ 314.9	\$ 271.5	\$ 43.4	16.0 %
% of total sales	12.1%	11.8%		

The increase in the dollar amount of selling and administrative expenses during the thirty-nine week period ended July 1, 2017 is primarily due to higher selling and administrative expenses relating to recent acquisitions of approximately \$47.6 million, which was approximately 19.5% of acquisition sales, partially offset by lower acquisition-related expenses of \$8.9 million.

- Amortization of Intangible Assets.** Amortization of intangible assets was \$71.2 million for the thirty-nine week period ended July 1, 2017 compared to \$53.5 million in the thirty-nine week period ended July 2, 2016. The increase in amortization expense of \$17.7 million was primarily due to the amortization expense on the definite-lived intangible assets (i.e., technology and order backlog) recorded in connection with the fiscal 2017 and 2016 acquisitions.
- Refinancing Costs.** Refinancing costs of \$35.9 million were recorded for the thirty-nine week period ended July 1, 2017 representing debt issuance costs expensed in connection with the debt financing activity that occurred during the quarters ended December 31, 2016 and April 1, 2017 as disclosed in Note 8, "Debt," to the condensed consolidated financial statements. Refinancing costs of \$15.7 million were recorded for the thirty-nine week period ended July 2, 2016 representing debt issuance costs expensed in connection with the debt financing activity that occurred during the third quarter of 2016.
- Interest Expense-net.** Interest expense-net includes interest on borrowings outstanding, amortization of debt issuance costs and revolving credit facility fees slightly offset by interest income. Interest expense-net increased \$102.0 million, or 29.6%, to \$446.1 million for the thirty-nine week period ended July 1, 2017 from \$344.1 million for the comparable thirty-nine week period last year. The net increase in interest expense-net was primarily due to an increase in the weighted average level of outstanding borrowings, which was approximately \$11.3 billion for the thirty-nine week period ended July 1, 2017 and approximately \$8.5 billion for the thirty-nine week period ended July 2, 2016. The increase in weighted average level of borrowings was primarily due to the issuance of the 2026 Notes for \$950 million in June 2016, the incremental term loans of \$950 million in June 2016, the additional net debt financing of \$641 million in the first quarter of 2017 and the additional 2025 Notes offering of \$300 million in the second quarter of 2017. The weighted average interest rate for cash interest payments on total borrowings outstanding at July 1, 2017 was 5.2%.
- Income Taxes.** Income tax expense as a percentage of income before income taxes was approximately 24.7% for the thirty-nine week period ended July 1, 2017 compared to 22.8% for the thirty-nine week period ended July 2, 2016. The Company's higher effective tax rate for the thirty-nine week period ended July 1, 2017 was primarily due to a smaller discrete adjustment from the application of ASU 2016-09 (see Note 4, "Recent Accounting Pronouncements," to the condensed consolidated financial statements) as it pertains to the accounting treatment of excess tax benefits on equity compensation and foreign earnings taxed at lower rates than the U.S. statutory rate.
- Net Income.** Net income increased \$11.7 million, or 2.7%, to \$443.4 million for the thirty-nine week period ended July 1, 2017 compared to net income of \$431.7 million for the thirty-nine week period ended July 2, 2016, primarily as a result of the factors referred to above.
- Earnings per Share.** The basic and diluted earnings per share was \$6.23 for the thirty-nine week period ended July 1, 2017 and \$7.63 per share for the thirty-nine week period ended July 2, 2016. Net income for the thirty-nine week period ended July 1, 2017 of \$443.4 million was decreased by an allocation of dividends on participating securities of \$96.0 million, or \$1.72 per share, resulting in net income available to common shareholders of \$347.5 million. Net income for the thirty-nine

week period ended July 2, 2016 of \$431.7 million was decreased by an allocation of dividends on participating securities of \$3.0 million, or \$0.05 per share, resulting in net income available to common shareholders of \$428.7 million. The decrease in earnings per share of \$1.40 per share to \$6.23 per share is a result of the factors referred to above. In connection with the fourth quarter of fiscal 2016 adoption of ASU 2016-09, approximately \$37.6 million in year-to-date excess tax benefits as of July 2, 2016 were reclassified from a component of additional paid-in-capital to a component of the income tax provision with a year-to-date favorable impact to basic and diluted earnings per common share of \$0.68.

Business Segments

- **Segment Net Sales.** Net sales by segment for the thirty-nine week period ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirty-Nine Week Periods Ended					
	July 1, 2017	% of Sales	July 2, 2016	% of Sales	Change	% Change
Power & Control	\$ 1,425.1	54.9%	\$ 1,154.8	50.3%	\$ 270.3	23.4%
Airframe	1,086.6	41.9%	1,067.3	46.5%	19.3	1.8%
Non-aviation	83.2	3.2%	74.1	3.2%	9.1	12.3%
	<u>\$ 2,594.9</u>	<u>100.0%</u>	<u>\$ 2,296.2</u>	<u>100.0%</u>	<u>\$ 298.7</u>	<u>13.0%</u>

Acquisition sales for the Power & Control segment totaled \$230.4 million, or an increase of 20.0%, resulting from the acquisitions of Breeze-Eastern, DDC, and Y&F/Tactair in fiscal year 2016 and the Third Quarter 2017 Acquisitions in fiscal year 2017. Organic sales increased \$39.9 million, or an increase of 3.4%, for the thirty-nine week period ended July 1, 2017 compared to the thirty-nine week period ended July 2, 2016. The organic sales increase resulted primarily from an increase in commercial aftermarket sales (\$32.3 million, an increase of 8.2%) and defense sales (\$14.5 million, an increase of 3.3%) partially offset by a decrease in commercial OEM sales (\$6.0 million, a decrease of 2.0%).

Acquisition sales for the Airframe segment totaled \$13.9 million, or an increase of 1.3%, resulting from the acquisition of Schroth in fiscal year 2017. Organic sales increased \$5.4 million, or an increase of 0.5%, for the thirty-nine week period ended July 1, 2017 compared to the thirty-nine week period ended July 2, 2016. The organic sales increase primarily resulted from increases in defense sales (\$18.9 million, an increase of 8.9%) and commercial OEM sales (\$1.6 million, an increase of 0.4%) partially offset by a decrease in commercial aftermarket sales (\$12.0 million, a decrease of 2.5%).

Organic sales for the Non-aviation segment increased \$9.1 million, or 12.3%, as a result of higher commercial OEM and defense sales. There were no acquisition sales for the Non-aviation segment for the thirty-nine week period ended July 1, 2017.

- **EBITDA As Defined.** EBITDA As Defined by segment for the thirty-nine week periods ended July 1, 2017 and July 2, 2016 were as follows (amounts in millions):

	Thirty-Nine Week Periods Ended					
	July 1, 2017	% of Segment Sales	July 2, 2016	% of Segment Sales	Change	% Change
Power & Control	\$ 712.3	50.0%	\$ 552.6	47.8%	\$ 159.7	28.9%
Airframe	536.9	49.4%	520.9	48.8%	16.0	3.1%
Non-aviation	27.0	32.4%	19.8	26.8%	7.2	36.4%
	<u>\$ 1,276.2</u>	<u>49.2%</u>	<u>\$ 1,093.3</u>	<u>47.6%</u>	<u>\$ 182.9</u>	<u>16.7%</u>

EBITDA As Defined for the Power & Control segment from the acquisitions of Breeze-Eastern, DDC and Y&F/Tactair in fiscal year 2016 and the Third Quarter 2017 Acquisitions in fiscal year 2017 was approximately \$101.0 million for the thirty-nine week period ended July 1, 2017. Organic EBITDA As Defined increased approximately \$58.7 million, or an increase of 10.6%, resulting from organic sales growth in commercial aftermarket sales and defense sales, application of our three core value-driven operating strategies, and positive leverage on our fixed overhead costs spread over a higher production volume.

EBITDA as Defined for the Airframe segment from the acquisition of Schroth in fiscal year 2017 was approximately \$2.0 million for the thirty-nine week period ended July 1, 2017. Organic EBITDA As Defined increased approximately \$14.0 million, or an increase of 2.7%, resulting from organic sales growth in defense sales and commercial OEM sales, application of our three core value-driven operating strategies, and positive leverage on our fixed overhead costs spread over a higher production volume.

Organic EBITDA as Defined for the Non-aviation segment increased \$7.2 million, or 36.4%, as a result of the higher commercial OEM and defense sales. There was no EBITDA as Defined from acquisitions for the Non-aviation segment for the thirty-nine week period ended July 1, 2017.

Backlog

As of July 1, 2017, the Company estimated its sales order backlog at \$1,612 million compared to an estimated sales order backlog of \$1,525 million as of July 2, 2016. The increase in backlog is primarily due to acquisitions. The majority of the purchase orders outstanding as of July 1, 2017 are scheduled for delivery within the next twelve months. Purchase orders may be subject to cancellation or deferral by the customer prior to shipment. The level of unfilled purchase orders at any given date during the year will be materially affected by the timing of the Company's receipt of purchase orders and the speed with which those orders are filled. Accordingly, the Company's backlog as of July 1, 2017 may not necessarily represent the actual amount of shipments or sales for any future period.

Foreign Operations

Although we manufacture a significant portion of our products in the United States, we manufacture some products in Belgium, China, Germany, Hungary, Malaysia, Mexico, Norway, Sri Lanka, Sweden, and the United Kingdom. We sell our products in the United States as well as in foreign countries. Although the majority of sales of our products are made to customers (including distributors) located in the United States, our products are ultimately sold to and used by customers, including airlines and other end users of aircraft, throughout the world. A number of risks inherent in international operations could have a material adverse effect on our results of operations, including currency fluctuations, difficulties in staffing and managing multi-national operations, general economic and political uncertainties and potential for social unrest in countries in which we operate, limitations on our ability to enforce legal rights and remedies, restrictions on the repatriation of funds, change in trade policies, tariff regulation, difficulties in obtaining export and import licenses and the risk of government financed competition.

There can be no assurance that foreign governments will not adopt regulations or take other action that would have a direct or indirect adverse impact on the business or market opportunities of the Company within such governments' countries. Furthermore, there can be no assurance that the political, cultural and economic climate outside the United States will be favorable to our operations and growth strategy.

Liquidity and Capital Resources

We have historically maintained a capital structure comprising a mix of equity and debt financing. We vary our leverage both to optimize our equity return and to pursue acquisitions. At this time, we expect to meet our current debt obligations as they come due through internally generated funds from current levels of operations and/or through refinancing in the debt markets prior to the maturity dates of our debt. We continually evaluate our debt facilities to assess whether they most efficiently and effectively meet the current and future needs of our business. The Company evaluates from time to time the appropriateness of its current leverage, taking into consideration the Company's debt holders, equity holders, credit ratings, acquisition opportunities and other factors.

As a result of the new debt financing during the thirty-nine week period ended July 1, 2017, interest payments will increase going forward in line with the terms of the related debt agreements. However, in connection with the continued application of our three core value-driven operating strategies (obtaining profitable new business, continually improving our cost structure and providing highly engineered value-added products to customers), we expect our efforts will continue to generate strong margins and provide more than sufficient cash provided by operating activities to meet our interest obligations and liquidity needs. We believe our cash provided by operating activities and available borrowing capacity will enable us to make opportunistic investments in our own stock, make strategic business combinations and/or pay dividends to our shareholders.

Operating Activities. The Company generated \$555.2 million of net cash from operating activities during the thirty-nine week period ended July 1, 2017 compared to \$482.2 million during the thirty-nine week period ended July 2, 2016. The net increase of \$73.0 million is primarily attributable to an increase in income from operations and items adjusting net income for non-cash expenses and income of \$43.5 million, and favorable changes in trade accounts receivable, inventories, and accounts payable of \$46.3 million, net.

The change in accounts receivable during the thirty-nine week period ended July 1, 2017 was a use of cash of \$21.2 million compared to a use of cash of \$37.3 million during the thirty-nine week period ended July 2, 2016. The decrease in the use of cash of \$16.1 million is attributable to the higher rate of collections of accounts receivable in fiscal 2017 compared to fiscal 2016.

The change in inventories during the thirty-nine week period ended July 1, 2017 was a use of cash of \$0.3 million compared to a use of cash of \$15.7 million during the thirty-nine week period ended July 2, 2016. The decrease in the use of cash of \$15.4 million is primarily attributable to increased monitoring of inventory management.

The change in accounts payable during the thirty-nine week period ended July 1, 2017 was a use of cash of \$12.3 million compared to a use of cash of \$27.1 million during the thirty-nine week period ended July 2, 2016. The decrease in the use of cash of \$14.8 million was primarily attributable to the timing of payments to vendors in connection with continued efforts to improve working capital management.

Investing Activities. Net cash used in investing activities was \$270.9 million during the thirty-nine week period ended July 1, 2017 consisting of capital expenditures of \$55.7 million, the cash settlement of the Breeze-Eastern dissenting shares litigation for \$28.7 million, the Schroth acquisition of \$79.7 million, and the Third Quarter 2017 Acquisitions of \$105.5 million. Additional investing activities consisted of a favorable working capital settlement of \$1.4 million for the DDC acquisition and an unfavorable working capital settlement of \$2.7 million for the Y&F/Tactair acquisition, respectively.

Net cash used in investing activities was comprised primarily of capital expenditures of \$30.0 million and the acquisitions of Breeze-Eastern and DDC for \$1,145.4 million during the thirty-nine week period ended July 2, 2016. Slightly offsetting the cash outflows was receipt of a \$2.0 million working capital settlement from the PneuDrualics acquisition in the second quarter of 2016.

Financing Activities. Net cash used in financing activities during the thirty-nine week period ended July 1, 2017 was \$902.6 million. The use of cash was primarily related to the aggregate payment of \$1,376.0 million for a \$24.00 per share special dividend and dividend equivalent payments, redemption and related premium paid on the 2021 Notes aggregating to \$528.8 million, \$389.8 million related to treasury stock purchases under the Company's share repurchase program, and \$48.5 million in debt service payments on the existing term loans. Slightly offsetting the uses of cash were net proceeds from the 2017 term loans and the additional 2025 Notes offering of \$1,132.8 million and \$300.5 million, respectively, and \$18.0 million in proceeds from stock option exercises.

Net cash provided by financing activities during the thirty-nine week period ended July 2, 2016 was \$1,643.3 million, which primarily was comprised of net proceeds from the 2016 term loans of \$1,712.2 million, net proceeds from the 2026 Notes of \$939.9 million and \$25.3 million from the exercise of stock options. These increases were partially offset by \$821.1 million of repayments on the term loans and \$207.8 million in treasury stock purchases under the Company's share repurchase programs.

Description of Senior Secured Credit Facilities and Indentures

Senior Secured Credit Facilities

On June 9, 2016, TD Group and certain subsidiaries of TransDigm entered into Amendment No. 1 to the Second Amended and Restated Credit Agreement (the "Credit Agreement"). Refer to Note 11, "Debt," to the consolidated financial statements included within our Annual Report on Form 10-K for further information regarding the tranche F term loans, the conversion of a portion of the existing tranche C term loans to tranche F, the repricing of the tranche E term loans and amendment to the revolving commitments.

On October 14, 2016, the Company entered into the Assumption Agreement with Credit Suisse AG, as administrative agent and collateral agent, and as a lender, in connection with the 2016 term loans. The Assumption Agreement, among other things, provided for (i) additional tranche F term loans in an aggregate principal amount equal to \$650 million, which were fully drawn on October 14, 2016, and (ii) additional delayed draw tranche F term loans in an aggregate principal amount not to exceed \$500 million, which were fully drawn on October 27, 2016, the proceeds of which were used to repurchase its 2021 Notes in connection the tender offer announced on October 13, 2016. The terms and conditions that apply to the Additional Tranche F Term Loans are substantially the same as the terms and conditions that apply to the tranche F term loans under the 2016 term loans immediately prior to the Assumption Agreement.

On March 6, 2017, TD Group and certain subsidiaries of TransDigm entered into Amendment No. 2 to the Credit Agreement. Refer to Note 8, "Debt," to the condensed consolidated financial statements included within this Form 10-Q for further information regarding the authorized dividends and share repurchases and the increase to the general investment basket established by Amendment No. 2 to the Credit Agreement.

TransDigm has \$6,390 million in fully drawn term loans (the "Term Loans Facility") and a \$600 million revolving credit facility. The Term Loans Facility consists of four tranches of term loans as follows (aggregate principal amount disclosed is as of July 1, 2017):

Term Loans Facility	Aggregate Principal	Maturity Date	Interest Rate
Tranche C	\$1,219 million	February 28, 2020	LIBO rate ⁽¹⁾ +3.00%
Tranche D	\$800 million	June 4, 2021	LIBO rate ⁽¹⁾ + 3.00%
Tranche E	\$1,507 million	May 14, 2022	LIBO rate ⁽¹⁾ + 3.00%
Tranche F	\$2,864 million	June 9, 2023	LIBO rate ⁽¹⁾ + 3.00%

(1) LIBO rate is subject to a floor of 0.75%.

The Term Loans Facility requires quarterly aggregate principal payments of \$16.2 million. The revolving commitments consist of one tranche which includes up to \$100 million of multicurrency revolving commitments. At July 1, 2017, the Company had \$16 million in letters of credit outstanding and \$584 million in borrowings available under the revolving commitments.

The interest rates per annum applicable to the loans under the Credit Agreement will be, at TransDigm's option, equal to either an alternate base rate or an adjusted LIBO rate for one, two, three or six-month (or to the extent agreed to by each relevant lender, nine or twelve-month) interest periods chosen by TransDigm, in each case plus an applicable margin percentage. The adjusted LIBO rate is subject to a floor of 0.75%. For the thirty-nine week period ended July 1, 2017, the applicable interest rates ranged from approximately 3.75% to 4.15% on the existing term loans.

Under the terms of the Credit Agreement, TransDigm is entitled, on one or more occasions, to request additional term loans to the extent that the existing or new lenders agree to provide such incremental term loans provided that, among other conditions, our consolidated net leverage ratio would be no greater than 7.25 to 1.00 and the consolidated secured net debt ratio would be no greater than 4.25 to 1.00, in each case, after giving effect to such incremental term loans. Under Amendment No. 2 to the Credit Agreement, TransDigm may use such additional term loans to make restricted payments in an aggregate amount not to exceed \$1,500 million, provided that, among other conditions, if such additional loans are to be used by TD Group to repurchase shares of its capital stock, the consolidated secured net debt ratio would be no greater than 4.00 to 1.00 and if such additional terms loans are to be used by TD Group to pay dividends or other distributions on or in respect of its capital stock, the consolidated net leverage ratio would be no greater than 6.50 to 1.00, in each case, after giving effect to such incremental term loans, and subject to certain exceptions, such restricted payment shall be made on or before March 6, 2018.

The Credit Agreement requires mandatory prepayments of principal based on certain percentages of Excess Cash Flow (as defined in the Credit Agreement), commencing 90 days after the end of each fiscal year, subject to certain exceptions. In addition, subject to certain exceptions (including, with respect to asset sales, the reinvestment in productive assets), TransDigm will be required to prepay the loans outstanding under the Credit Agreement at 100% of the principal amount thereof, plus accrued and unpaid interest, with the net cash proceeds of certain asset sales and issuance or incurrence of certain indebtedness. No matters mandating prepayments occurred during the quarter ended July 1, 2017.

Interest rate swaps and caps used to hedge and offset, respectively, the variable interest rates on the credit facility are described in Note 11, "Derivatives and Hedging Activities" to the condensed consolidated financial statements included herein.

Indentures

Senior Subordinated Notes	Aggregate Principal	Maturity Date	Interest Rate
2020 Notes	\$550 million	October 15, 2020	5.50%
2022 Notes	\$1,150 million	July 15, 2022	6.00%
2024 Notes	\$1,200 million	July 15, 2024	6.50%
2025 Notes	\$750 million	May 15, 2025	6.50%
2026 Notes	\$950 million	June 15, 2026	6.375%

The 2020 Notes, the 2022 Notes, the 2024 Notes, and the 2026 Notes (the "Notes") were issued at an issue price of 100% of the principal amount. The initial \$450 million offering of the 2025 Notes (also considered to be part of the "Notes") were issued at an issue price of 100% of the principal amount and the subsequent \$300 million offering in the quarter ended April 1, 2017 of 2025 Notes (further described below) were issued at an issue price of 101.5% of the principal amount.

Such Notes do not require principal payments prior to their maturity. Interest under the Notes is payable semi-annually. The Notes represent unsecured obligations of TransDigm Inc. ranking subordinate to TransDigm Inc.'s senior debt, as defined in the applicable Indentures.

The Notes are subordinated to all of TransDigm's existing and future senior debt, rank equally with all of its existing and future senior subordinated debt and rank senior to all of its future debt that is expressly subordinated to the Notes. The Notes are guaranteed on a senior subordinated unsecured basis by TD Group and its wholly-owned domestic subsidiaries named in the indentures. The guarantees of the Notes are subordinated to all of the guarantors' existing and future senior debt, rank equally with all of their existing and future senior subordinated debt and rank senior to all of their future debt that is expressly subordinated to the guarantees of the Notes. The Notes are structurally subordinated to all of the liabilities of TD Group's non-guarantor subsidiaries. The Notes contain many of the restrictive covenants included in the Credit Agreement. TransDigm is in compliance with all the covenants contained in the Notes.

During the first quarter of fiscal 2017, the Company cash tendered all of its 2021 Notes outstanding with a portion of the proceeds received from the Incremental Term Loan Assumption Agreement.

During the second quarter of fiscal 2017, the Company issued \$300 million in aggregate principal of its 2025 Notes at a premium of 1.5%, resulting in gross proceeds of \$304.5 million. The new notes offered are an additional issuance to our existing 2025 Notes and were issued under the same indenture as the original issuance of the \$450 million in 2025 Notes. With the addition of this issuance, there is a total of \$750 million in aggregate principal of 2025 Notes.

Certain Restrictive Covenants in Our Debt Documents

The Credit Agreement and the Indentures governing the Notes contain restrictive covenants that, among other things, limit the incurrence of additional indebtedness, the payment of dividends, transactions with affiliates, asset sales, acquisitions, mergers and consolidations, liens and encumbrances, and prepayments of other indebtedness.

Pursuant to the Credit Agreement, prior to Amendment No. 2 as described below, and subject to certain conditions, TransDigm was permitted to make certain additional restricted payments, including to declare or pay dividends or repurchase stock, in an aggregate amount not to exceed \$1,500 million on or prior to December 31, 2016. Subsequent to December 31, 2016, the aggregate amount of restricted payments remaining, not to exceed \$500 million, were permissible solely to the extent that the proceeds were used to repurchase stock. The total restricted payments, as described above, made prior to December 31, 2016 totaled \$1,326 million (all related to the special dividend payment and dividend equivalent payments). The remaining \$50 million in dividend equivalent payments made in the quarter ended December 31, 2016 were applied against allowable restricted payments that carried over from previous years under our Credit Agreement. During January 2017, \$150 million in stock repurchases were made (up to \$174 million in stock repurchases were allowable) under this agreement.

On March 6, 2017, TD Group and certain subsidiaries of TransDigm entered into Amendment No. 2 to the Credit Agreement. Amendment No. 2 permits, among other things, up to \$1,500 million of dividends and share repurchases on or prior to March 6, 2018. If any portion of the \$1,500 million is not used for dividends or share repurchases by March 6, 2018, such amount (not to exceed \$500 million) may be used to repurchase stock at any time thereafter. As of July 1, 2017, \$240 million in stock repurchases have been made under Amendment No. 2. Therefore, approximately \$1,260 million in restricted payments are permissible under Amendment No. 2 as of July 1, 2017.

In addition, under the Credit Agreement, if the usage of the revolving credit facility exceeds 25% of the total revolving commitments, the Company will be required to maintain a maximum consolidated net leverage ratio of net debt, as defined, to trailing four-quarter EBITDA As Defined. A breach of any of the covenants or an inability to comply with the required leverage ratio could result in a default under the Credit Agreement or the Indentures.

If any such default occurs, the lenders under the Credit Agreement and the holders of the Notes may elect to declare all outstanding borrowings, together with accrued interest and other amounts payable thereunder, to be immediately due and payable. The lenders under the Credit Agreement also have the right in these circumstances to terminate any commitments they have to provide further borrowings. In addition, following an event of default under the Credit Agreement, the lenders thereunder will have the right to proceed against the collateral granted to them to secure the debt, which includes our available cash, and they will also have the right to prevent us from making debt service payments on the Notes.

As of July 1, 2017, the Company was in compliance with all of its debt covenants.

Trade Receivables Securitization

During fiscal 2014, the Company established a trade accounts receivable securitization facility (the "Securitization Facility"). The Securitization Facility effectively increases the Company's borrowing capacity depending on the amount of the Company's domestic operations' trade accounts receivable. The Securitization Facility includes the right for the Company to exercise annual one year extensions as long as there have been no termination events as defined by the agreement. The Company uses the proceeds from the Securitization Facility as an alternative to other forms of debt, effectively reducing borrowing costs. In August 2015, the Company increased the borrowing capacity from \$225 million to \$250 million in connection with amending the Securitization Facility. As of July 1, 2017, the Company has borrowed \$200 million under the Securitization Facility.

In August 2017, the Company increased the borrowing capacity from \$250 million to \$300 million in connection with amending the Securitization Facility to a maturity date of July 31, 2018. The Securitization Facility is collateralized by substantially all of the Company's domestic operations' trade accounts receivable.

Stock Repurchase Program

On January 21, 2016, our Board of Directors authorized a stock repurchase program permitting us to repurchase a portion of our outstanding shares not to exceed \$450.0 million in the aggregate, subject to any restrictions specified in the Credit Agreement and/or Indentures. On January 26, 2017, our Board of Directors increased the authorized amount of repurchases allowable under the stock program from \$450.0 million to \$472.0 million. The \$22.0 million increase in the repurchases allowable under the stock repurchase program aligned the program with the restricted payments allowable under the Credit Agreement. During January 2017, the Company repurchased 666,755 shares of its common stock at a gross cost of approximately \$150.0 million at the weighted average cost of \$224.97 under the \$472.0 million stock repurchase program.

On March 7, 2017, our Board of Directors authorized a stock repurchase program replacing the \$472.0 million program with a repurchase program permitting us to repurchase a portion of our outstanding shares not to exceed \$600.0 million in the aggregate, subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes. During March 2017, the Company repurchased 851,069 shares of its common stock at a gross cost of approximately \$189.8 million at the weighted average cost of \$223.05 under the new \$600.0 million stock repurchase program. Additionally, during May 2017, the Company

repurchased 205,800 shares of its common stock at a gross cost of approximately \$50.0 million at the weighted average cost of \$242.90 under the new \$600.0 million stock repurchase program. As of July 1, 2017, the remaining amount of repurchases allowable under the \$600.0 million program was \$360.2 million subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes.

Non-GAAP Financial Measures

We present below certain financial information based on our EBITDA and EBITDA As Defined. References to “EBITDA” mean earnings before interest, taxes, depreciation and amortization, and references to “EBITDA As Defined” mean EBITDA plus, as applicable for each relevant period, certain adjustments as set forth in the reconciliations of net income to EBITDA and EBITDA As Defined and the reconciliations of net cash provided by operating activities to EBITDA and EBITDA As Defined presented below.

Neither EBITDA nor EBITDA As Defined is a measurement of financial performance under accounting principles generally accepted in the United States of America (“GAAP”). We present EBITDA and EBITDA As Defined because we believe they are useful indicators for evaluating operating performance and liquidity.

Our management believes that EBITDA and EBITDA As Defined are useful as indicators of liquidity because securities analysts, investors, rating agencies and others use EBITDA to evaluate a company’s ability to incur and service debt. In addition, EBITDA As Defined is useful to investors because the revolving credit facility under our senior secured credit facility requires compliance under certain circumstances, on a pro forma basis, with a financial covenant that measures the ratio of the amount of our secured indebtedness to the amount of our Consolidated EBITDA defined in the same manner as we define EBITDA As Defined herein.

In addition to the above, our management uses EBITDA As Defined to review and assess the performance of the management team in connection with employee incentive programs and to prepare its annual budget and financial projections. Moreover, our management uses EBITDA As Defined to evaluate acquisitions.

Although we use EBITDA and EBITDA As Defined as measures to assess the performance of our business and for the other purposes set forth above, the use of these non-GAAP financial measures as analytical tools has limitations, and you should not consider any of them in isolation, or as a substitute for analysis of our results of operations as reported in accordance with GAAP. Some of these limitations are:

- neither EBITDA nor EBITDA As Defined reflects the significant interest expense, or the cash requirements necessary to service interest payments, on our indebtedness;
- although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and neither EBITDA nor EBITDA As Defined reflects any cash requirements for such replacements;
- the omission of the substantial amortization expense associated with our intangible assets further limits the usefulness of EBITDA and EBITDA As Defined;
- neither EBITDA nor EBITDA As Defined includes the payment of taxes, which is a necessary element of our operations; and
- EBITDA As Defined excludes the cash expense we have incurred to integrate acquired businesses into our operations, which is a necessary element of certain of our acquisitions.

Because of these limitations, EBITDA and EBITDA As Defined should not be considered as measures of discretionary cash available to us to invest in the growth of our business. Management compensates for these limitations by not viewing EBITDA or EBITDA As Defined in isolation and specifically by using other GAAP measures, such as net income, net sales and operating profit, to measure our operating performance. Neither EBITDA nor EBITDA As Defined is a measurement of financial performance under GAAP, and neither should be considered as an alternative to net income or cash flow from operations determined in accordance with GAAP. Our calculation of EBITDA and EBITDA As Defined may not be comparable to the calculation of similarly titled measures reported by other companies.

The following table sets forth a reconciliation of net income to EBITDA and EBITDA As Defined (in thousands):

	Thirteen Week Periods Ended		Thirty-Nine Week Periods Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
	(in thousands)		(in thousands)	
Net income	\$ 169,053	\$ 160,622	\$ 443,429	\$ 431,746
Adjustments:				
Depreciation and amortization expense	36,924	29,564	109,851	85,101
Interest expense, net	152,227	120,812	446,073	344,083
Income tax provision	66,015	33,554	145,573	127,276
EBITDA	424,219	344,552	1,144,926	988,206
Adjustments:				
Inventory purchase accounting adjustments ⁽¹⁾	1,398	1,250	21,127	9,670
Acquisition integration costs ⁽²⁾	2,707	2,676	5,216	16,723
Acquisition transaction-related expenses ⁽³⁾	2,087	5,923	6,521	8,303
Non-cash stock compensation expense ⁽⁴⁾	11,580	11,371	32,707	33,819
Refinancing costs ⁽⁵⁾	345	15,654	35,936	15,654
Other, net ⁽⁶⁾	547	2,451	2,615	(480)
EBITDA As Defined	\$ 442,883	\$ 383,877	\$ 1,249,048	\$ 1,071,895

- (1) Represents accounting adjustments to inventory associated with acquisitions of businesses and product lines that were charged to cost of sales when the inventory was sold.
- (2) Represents costs incurred to integrate acquired businesses and product lines into TD Group's operations, facility relocation costs and other acquisition-related costs.
- (3) Represents transaction-related costs comprising deal fees; legal, financial and tax due diligence expenses; and valuation costs that are required to be expensed as incurred.
- (4) Represents the compensation expense recognized by TD Group under our stock incentive plans.
- (5) For the thirteen week period ended July 1, 2017, represents debt issuance costs expensed in conjunction with the additional 2025 Notes. For the thirty-nine week period ended July 1, 2017, represents debt issuance costs expensed in conjunction with the incremental term loan (tranche F), refinancing of the 2021 Notes and the additional 2025 Notes.
- (6) Primarily represents foreign currency transaction gain or loss on intercompany loans to be settled, gain or loss on sale of fixed assets and payroll withholding taxes related to dividend equivalent payments.

The following table sets forth a reconciliation of net cash provided by operating activities to EBITDA and EBITDA As Defined (in thousands):

	Thirty-Nine Week Periods Ended	
	July 1, 2017	July 2, 2016
	(in thousands)	
Net cash provided by operating activities	\$ 555,216	\$ 482,176
Adjustments:		
Changes in assets and liabilities, net of effects from acquisitions of businesses	82,507	100,344
Interest expense, net ⁽¹⁾	430,543	332,372
Income tax provision - current	145,303	122,787
Non-cash stock compensation expense ⁽²⁾	(32,707)	(33,819)
Refinancing costs ⁽⁶⁾	(35,936)	(15,654)
EBITDA	1,144,926	988,206
Adjustments:		
Inventory purchase accounting adjustments ⁽³⁾	21,127	9,670
Acquisition integration costs ⁽⁴⁾	5,216	16,723
Acquisition transaction-related expenses ⁽⁵⁾	6,521	8,303
Non-cash stock compensation expense ⁽²⁾	32,707	33,819
Refinancing costs ⁽⁶⁾	35,936	15,654
Other, net ⁽⁷⁾	2,615	(480)
EBITDA As Defined	<u>\$ 1,249,048</u>	<u>\$ 1,071,895</u>

(1) Represents interest expense excluding the amortization of debt issuance costs and premium and discount on debt.

(2) Represents the compensation expense recognized by TD Group under our stock incentive plans.

(3) Represents accounting adjustments to inventory associated with acquisitions of businesses and product lines that were charged to cost of sales when the inventory was sold.

(4) Represents costs incurred to integrate acquired businesses and product lines into TD Group's operations, facility relocation costs and other acquisition-related costs.

(5) Represents transaction-related costs comprising deal fees; legal, financial and tax due diligence expenses; and valuation costs that are required to be expensed as incurred.

(6) For the thirty-nine week period ended July 1, 2017, represents debt issuance costs expensed in conjunction with the incremental term loan (tranche F), refinancing of the 2021 Notes and the additional 2025 Notes.

(7) Primarily represents foreign currency transaction gain or loss on intercompany loans to be settled, gain or loss on sale of fixed assets and payroll withholding taxes related to dividend equivalent payments.

Critical Accounting Policies

Our consolidated financial statements have been prepared in accordance with GAAP, which often requires the judgment of management in the selection and application of certain accounting principles and methods. Management believes that the quality and reasonableness of our most critical policies enable the fair presentation of our financial position and results of operations. However, investors are cautioned that the sensitivity of financial statements to these methods, assumptions and estimates could create materially different results under different conditions or using different assumptions.

A summary of our significant accounting policies and estimates is included in the Annual Report on Form 10-K for the year ended September 30, 2016. There have been no significant changes to our critical accounting policies during the thirty-nine week period ended July 1, 2017. Refer to Note 4, "Recent Accounting Pronouncements," for a discussion of accounting standards recently adopted or required to be adopted in the future.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

The information called for by this item is provided under the caption '*Description of Senior Secured Credit Facilities and Indentures*' under Item 2 - "Management's Discussion and Analysis of Financial Condition and Results of Operations."

ITEM 4. CONTROLS AND PROCEDURES

As of July 1, 2017, TD Group carried out an evaluation, under the supervision and with the participation of TD Group's management, including its Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer) and Executive Vice

President and Chief Financial Officer (Principal Financial and Accounting Officer), of the effectiveness of the design and operation of TD Group's disclosure controls and procedures. Based upon that evaluation, the Chairman of the Board of Directors and Chief Executive Officer and Executive Vice President and Chief Financial Officer concluded that TD Group's disclosure controls and procedures are effective to ensure that information required to be disclosed by TD Group in the reports it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported, within the time periods specified by the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to TD Group's management, including its Chairman of the Board of Directors and Chief Executive Officer and Executive Vice President and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, TD Group's management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily was required to apply its judgment in designing and evaluating the controls and procedures. There have been no significant changes in TD Group's internal controls or other factors that could significantly affect the internal controls subsequent to the date of TD Group's evaluations.

Changes in Internal Control over Financial Reporting

During the thirty-nine week period ended July 1, 2017, we acquired Schroth and the Third Quarter 2017 Acquisitions. These businesses acquired operated under their own set of systems and internal controls and we are currently maintaining those systems and much of that control environment until we are able to incorporate their processes into our own systems and control environment. We expect to complete the incorporation of acquisition's operations into our systems and control environment in fiscal 2018.

There have been no other changes to our internal controls over financial reporting that could have a material effect on our financial reporting during the quarter ended July 1, 2017.

PART II: OTHER INFORMATION

ITEM 1A. RISK FACTORS

In addition to the other information set forth in this report, you should carefully consider the risk factors disclosed in Item 1A of our Annual Report on Form 10-K for the fiscal year ended September 30, 2016, filed on November 15, 2016. There have been no material changes to the risk factors set forth therein.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS: PURCHASES OF EQUITY SECURITIES BY THE ISSUER

Issuer purchases of its common shares outstanding during the thirteen week period ended July 1, 2017 were as follows (amounts in millions, except share amounts):

Period	Total Number of Shares Repurchased	Average Price Paid Per Share	Total Number of Shares Repurchased as Part of Publicly Announced Plans or Programs
April 2017	—	\$ —	—
May 2017	205,800	\$ 242.90	205,800
June 2017	—	\$ —	—
Total	205,800		205,800

On January 21, 2016, our Board of Directors authorized a stock repurchase program permitting us to repurchase a portion of our outstanding shares not to exceed \$450.0 million in the aggregate, subject to any restrictions specified in the Credit Agreement and/or Indentures. On January 26, 2017, our Board of Directors increased the authorized amount of repurchases allowable under the stock program from \$450.0 million to \$472.0 million. The \$22.0 million increase in the repurchases allowable under the stock repurchase program aligned the program with the restricted payments allowable under the Credit Agreement.

On March 7, 2017, our Board of Directors authorized a stock repurchase program replacing the \$472.0 million program with a repurchase program permitting us to repurchase a portion of our outstanding shares not to exceed \$600.0 million in the aggregate, subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes.

During May 2017, the Company repurchased 205,800 shares of its common stock at a gross cost of approximately \$50.0 million at the weighted average cost of \$242.90 under the \$600.0 million stock repurchase program. As of July 1, 2017, the remaining amount of repurchases allowable under the \$600.0 million program was \$360.2 million subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes.

ITEM 6. EXHIBITS

- 3.1 Restated Certificate of Incorporation, filed June 27, 2014, of North Hills Processing Corp. (filed herewith)
- 3.2 Bylaws of Porta Systems Corp. (now known as North Hills Signal Processing Corp.) (filed herewith)
- 3.3 Certificate of Incorporation, filed October 12, 1982, of Porta Systems Overseas Corp (now known as North Hills Signal Processing Overseas Corp) (filed herewith)
- 3.4 Certificate of Amendment to Certificate of Incorporation, filed October 6, 2010, of Porta Systems Overseas Corp (now known as North Hills Signal Processing Overseas Corp) (filed herewith)
- 3.5 Bylaws of Porta Systems Overseas Corp. (now known as North Hills Signal Processing Overseas Corp) (filed herewith)
- 4.1 Eleventh Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
- 4.2 Eighth Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
- 4.3 Eighth Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
- 4.4 Seventh Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
- 4.5 Fourth Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
- 10.1 Ninth Amendment to the Receivables Purchase Agreement dated as of August 1, 2017, among TransDigm Receivables LLC, TransDigm Inc., PNC Bank, National Association, as a Committed Purchaser, as Purchaser Agent for its Purchaser Group and as Administrator, Atlantic Asset Securitization LLC, as a Conduit Purchaser, Credit Agricole Corporate and Investment Bank, as a Committed Purchaser and as a Purchaser Agent for its and Atlantic's Purchaser Group, and Fifth Third Bank, as a Committed Purchaser and as Purchaser Agent for its Purchaser Group
- 31.1 Certification by Principal Executive Officer of TransDigm Group Incorporated pursuant to Rule 13a-14(a) or 15d- 14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification by Principal Financial Officer of TransDigm Group Incorporated pursuant to Rule 13a-14(a) or 15d- 14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification by Principal Executive Officer of TransDigm Group Incorporated pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2 Certification by Principal Financial Officer of TransDigm Group Incorporated pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101 Financial Statements and Notes to the Condensed Consolidated Financial Statements formatted in XBRL

SIGNATURES

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

TRANSDIGM GROUP INCORPORATED

SIGNATURE	TITLE	DATE
<u>/s/ W. Nicholas Howley</u> W. Nicholas Howley	Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer)	August 8, 2017
<u>/s/ Terrance M. Paradie</u> Terrance M. Paradie	Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	August 8, 2017

EXHIBIT INDEX
TO FORM 10-Q FOR THE PERIOD ENDED JULY 1, 2017

EXHIBIT NO.	DESCRIPTION
3.1	Restated Certificate of Incorporation, filed June 27, 2014, of North Hills Processing Corp. (filed herewith)
3.2	Bylaws of Porta Systems Corp. (now known as North Hills Signal Processing Corp.) (filed herewith)
3.3	Certificate of Incorporation, filed October 12, 1982, of Porta Systems Overseas Corp (now known as North Hills Signal Processing Overseas Corp) (filed herewith)
3.4	Certificate of Amendment to Certificate of Incorporation, filed October 6, 2010, of Porta Systems Overseas Corp (now known as North Hills Signal Processing Overseas Corp) (filed herewith)
3.5	Bylaws of Porta Systems Overseas Corp. (now known as North Hills Signal Processing Overseas Corp) (filed herewith)
4.1	Eleventh Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
4.2	Eighth Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
4.3	Eighth Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
4.4	Seventh Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
4.5	Fourth Supplemental Indenture, dated as of May 9, 2017, among TransDigm, Inc., TransDigm Group Incorporated, the guarantors listed on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee (filed herewith)
10.1	Ninth Amendment to the Receivables Purchase Agreement dated as of August 1, 2017, among TransDigm Receivables LLC, TransDigm Inc., PNC Bank, National Association, as a Committed Purchaser, as Purchaser Agent for its Purchaser Group and as Administrator, Atlantic Asset Securitization LLC, as a Conduit Purchaser, Credit Agricole Corporate and Investment Bank, as a Committed Purchaser and as a Purchaser Agent for its and Atlantic's Purchaser Group, and Fifth Third Bank, as a Committed Purchaser and as Purchaser Agent for its Purchaser Group
31.1	Certification by Principal Executive Officer of TransDigm Group Incorporated pursuant to Rule 13a-14(a) or 15d- 14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification by Principal Financial Officer of TransDigm Group Incorporated pursuant to Rule 13a-14(a) or 15d- 14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification by Principal Executive Officer of TransDigm Group Incorporated pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification by Principal Financial Officer of TransDigm Group Incorporated pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	Financial Statements and Notes to the Condensed Consolidated Financial Statements formatted in XBRL

State of Delaware
Secretary of State
Division of Corporations
Delivered 04:37 PM 06/27/2014
FILED 04:37 PM 06/27/2014
SRV 140895955 - 0784156 FILE

RESTATED CERTIFICATE OF INCORPORATION
OF
NORTH HILLS SIGNAL PROCESSING CORP.

North Hills Signal Processing Corp., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "corporation"), does hereby certify:

1. The name of the corporation is North Hills Signal Processing Corp. The original name of the corporation is Porta Systems Corp. The certificate of incorporation of the corporation was filed with the Secretary of State on August 9, 1972.

2. The Certificate of Incorporation of the Corporation is hereby amended and restated to read as follows:

FIRST: The name of the Corporation is North Hills Signal Processing Corp. (the "Corporation").

SECOND: The address, including street, number, city, and county, of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801, County of New Castle; and the name of the registered agent of the Corporation in the State of Delaware at such address is The Corporate Trust Company.

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

FOURTH: (a) The total number of shares of capital stock which the corporation is authorized to issue is 1,000 shares, all of which are designated as Common Stock, and shall have a par value of \$0.01 per share.

(b) No holder of shares of stock of any class shall be entitled as a matter of right to subscribe for or purchase or receive any part of any new or additional issue of shares of stock of any class, or of securities convertible into shares of stock of any class, whether now hereafter authorized or whether issued for money, for consideration other than money, or by way of dividend.

FIFTH: The Board of Directors shall have the power to adopt, amend or repeal the by-laws of the Corporation.

SIXTH: No director shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty by such director as a director. Notwithstanding the foregoing sentence, a director shall be liable to the extent provided by applicable law, (i) for breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the General Corporation Law or (iv) for any transaction from which the director derived an improper personal benefit. If the General Corporation Law hereafter is amended to authorize the further elimination or limitation of the liability of directors, then the liability of a director of the Corporation, in addition to the limitation on personal liability provided herein, shall be limited to the fullest extent permitted by the amended General Corporation Law. No amendment to or repeal of this Article SIXTH shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment.

SEVENTH: The Corporation shall indemnify, to the fullest extent permitted by Section 145 of the General Corporation Law, as amended from time to time, each person that such section grants the Corporation the power to indemnify.

3. Upon the filing of this Restated Certificate of Incorporation, each share of Common Stock, par value of \$0.01 per share, outstanding on such date shall automatically become and be converted into 0.0005 of a share of such Common Stock.

4. This Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 245, 242 and 228 of the General Corporation Law of Delaware.

5. The capital of the corporation will not be reduced under or by reason of any amendment herein certified.

IN WITNESS WHEREOF, North Hills Signal Processing Corp. has caused this Certificate to be signed by its Chief Executive Officer this 27th day of June, 2014.

/s/ Estro Vitantonio
Estro Vitantonio, Chief Executive Officer

BY-LAWS
OF
PORTA SYSTEMS CORP.
ARTICLE I
Offices

Section 1. The registered office shall be in
Wilmington, Delaware.

Section 2. The Corporation may have offices also at
other such places within and without the State of Delaware as the
board of directors may from time to time determine or as the
business of the Corporation may required.

ARTICLE II
Meeting of Stockholders

Section 1. Meetings of stockholders shall be held at such
place, within or without the State of Delaware, as shall be
designated from time to time by the board of directors.

Section 2. Annual meetings of stockholders shall, unless
otherwise provided by the board of directors, be held on the
fourth Thursday in May each year it not a legal holiday, and if a
legal holiday, then on the next full business day following at
3:00 P.M. at which time they shall elect a board of directors

and transact such other business as may properly be brought before the meeting.

Section 3. Written notice of the annual meeting stating the place, date and hour thereof, shall be given to each stockholder entitled to vote thereat not less than ten or more than sixty days before the date of the meeting.

Section 4. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the board of directors may fix, in advance, a record date, which shall not be more than sixty or less than ten days before the date of such meeting, and not more than sixty days prior to any other action. A determination of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

Section 5. The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order with the address of the number of voting shares registered in the name of each. Such list shall open for ten days to the examination of any stockholder, for any purpose

germane to the meeting, during ordinary business hours, either at a place within the city where the meeting is to be held, or which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held, and shall be produced and kept at the same time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

Section 6. Special meetings of stockholders may be called by the board of directors, by the chairman of the board or by the stockholders owning a majority in amount of the entire capital stock of the Corporation issued and outstanding and entitled to vote. Such notice shall state the purpose or purposes of the proposed meeting.

Section 7. Written notice of a special meeting of stockholders, stating the place, date, hour and purpose thereof, shall be given by the secretary to each stockholder entitled to vote thereat not less than ten or more than sixty days before the date fixed for the meeting.

Section 8. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 9. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum shall not be present or represented at any meeting of stockholders, the stockholders

entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time without notice other than announcement at the meeting if the adjournment is not for more than thirty days and a new record date is not fixed for the adjourned meeting, until a quorum shall be present or represented. If a quorum shall be present or represented at such adjourned meeting any business may be transacted which might have been transacted at the original meeting.

Section 10. When a quorum is present at any meeting, the affirmative vote of a majority of the votes cast shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the certificate of incorporation a different vote is required, in which case such express provision shall govern and control the decision of such question.

Section 11. Each stockholder shall at every meeting of stockholders be entitled to one vote in person or by proxy for each share of the capital stock having voting power held by such stockholder, but no proxy shall be voted on after three years from its date, unless the proxy provides for a longer period. Two inspectors of election may be appointed by the board of directors, or if not so appointed, then by the presiding officer of the meeting. If inspectors of election are appointed, all questions regarding the qualification of voters, the validity of proxies and the acceptance or rejection of votes shall be decided by such inspectors of election.

Section 12. Whenever the vote of the stockholders at

a meeting thereof is required or permitted to be taken for or in connection with any corporate action, by any provisions of the statutes, the meeting and vote of stockholders may be dispensed with if all of the stockholders who would have been entitled to vote, or less than all but not less than the holders of a majority of the stock entitled to vote, upon the action if such meeting were held shall consent in writing to such corporate action being taken; provided that the written consent shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted, and provided that prompt notice must be given to all stockholders of the taking of corporate action without a meeting and by less than unanimous written consent.

ARTICLE III

Directors

Section 1. The number of directors which shall constitute the whole board shall be seven. By amendment of this by-law the number may be increased or decreased from time to time by the board of directors or the stockholders within the limits permitted by law, but no decrease in the number of directors shall change the term of any director in office at the time thereof. The directors shall be elected at the annual meeting of stockholders, except as provided in Section 2 of this article, and each director shall hold office until his successor

is elected and qualified or until his earlier resignation or removal. Any director may resign at any time upon written notice to the Corporation. Any director may be removed either with or without cause, at any time by the affirmative vote of the majority in interest of the holders of record of the stock having voting power, and the vacancy in the board of directors caused by such removal may be filled by the stockholders at the time of such removal. Directors need not be stockholders.

Section 2. Vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, and each of the directors so chosen shall hold office until the next annual election and until his successor is elected and qualified or until his earlier resignation or removal.

Section 3. The business and affairs of the Corporation shall be managed by or under the direction of its board of directors which shall exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation or by these by-laws directed or required to be exercised or done by the stockholders.

Section 4. The first meeting of each newly elected board of directors shall be held immediately following the adjournment of the annual meeting of stockholders and at the place thereof. No notice of such meeting shall be necessary to the directors in order legally to constitute the meeting, provided a quorum shall be present. In the event such meeting

is not so held, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the board of directors.

Section 5. The board of directors of the Corporation or any committee thereof may hold meetings, both regular and special, either within or without the State of Delaware. Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board of directors. Special meetings of the board of directors may be called by the chairman of the board, the president or by two or more directors. Meetings of committees of the board of directors may be called by the chairman of the board of directors, the president or by the chairman of each committee. Notice of special meetings of the board of directors or of any committee shall be given by the secretary or assistant secretary to each director at least three days before the meeting if by mail or at least 24 hours before the meeting if given in person or by telephone, by telegraph or by facsimile transmission. The notice need not specify the business to be transacted.

Section 6. At meetings of the board of directors, three of the directors at the time in office but in no event less than one third of the full number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors. If a quorum shall not be present at any meeting of the board of directors, the directors present thereat may adjourn the meeting



from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

Section 7. The board of directors may, by resolution passed by a majority of the whole board, designate one or more committees of the board of directors, each committee to consist of one or more of the directors of the Corporation, which, to the extent provided in the resolution, shall have and may exercise the powers of the board of directors in the management of the business and affairs of the Corporation, including the power and authority to declare a dividend and to authorize the issuance of stock, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority to amend the certificate of incorporation, adopt an agreement of merger or consolidation, recommend to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommend to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amend the by-laws of the Corporation. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the board of directors. Unless the board of directors designates one or more directors as alternate members of any committee, who may replace an absent or disqualified member at any meeting of the committee, the members of any such committee present at any meeting and not disqualified from voting may, whether or not they constitute a quorum, unanimously appoint another member of the board of directors to act at the meeting in the place of any absent or

disqualified member of such committee. At meetings of any such committee, a majority of the members or alternate members of such committee shall constitute a quorum for the transaction of business and the act of a majority of the members or alternate members present at any meeting at which there is a quorum shall be the act of the committee.

Section 8. The committees shall keep regular minutes of their proceedings.

Section 9. Any action required or permitted to be taken at any meeting of the board of directors or of any committee thereof may be taken without a meeting if a written consent thereto is signed by all members of the board or of such committee, as the case may be, and such written consent is filed with the minutes of proceeding of the board or committee.

Section 10. The members of the board of directors or any committee thereof may participate in a meeting of such board or committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other and such participation shall constitute presence in person at such meeting.

Section 11. The directors may be paid their expenses of attendance at each meeting of the board of directors and may be paid a fixed sum for attendance at each meeting of the board of directors and a stated fee as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like reimbursement

and compensation for attending committee meetings.

Section 12. The board of directors may, in its discretion, appoint any person or persons to the position of advisory director for a one year term. An advisory director may be appointed or reappointed annually at the annual meeting or from time to time, but the occurrence of any event which in the case of a director would create a vacancy in the board of directors shall not be deemed to create a vacancy in the position of an advisory director. Each advisory director shall serve in an advisory capacity to the board of directors or any of its committees, and will be notified of each meeting of the board of directors and any of its committee meetings, and will have the privilege of attending meetings of the board of directors or any of its committees. No advisory director shall be entitled to vote on any business coming before the board of directors or any of its committees, nor shall any advisory director be counted as a member of the board of directors or any of its committees in determining the number necessary to constitute a quorum or for the purpose of determining whether a quorum is present or for any other purpose whatsoever. Each advisory director, if not otherwise an employee of the Corporation, shall be entitled to receive such amounts as may be fixed from time to time by the board of directors as the advisory director's compensation for attending meetings and shall be reimbursed for all reasonable expenses in attending and returning from meetings of the board of directors or any of its committees.

ARTICLE IV

Notices

Section 1. Notices to directors and stockholders mailed to them at their addresses appearing on the books of the Corporation shall be deemed to be given at the time when deposited in the United States mail.

Section 2. Whenever any notice is required to be given under the provisions of the statutes or of the certificate of incorporation or of these by-laws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent of notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

ARTICLE V

Officers

Section 1. The officers of the Corporation shall be chosen by the board of directors at its first meeting after each annual meeting of stockholders and shall consist of a Chairman of the Board of Directors and a president, each of whom shall be selected from among the directors, one or more vice presidents, a secretary and a treasurer. The board of directors may choose

also such additional officers or assistant officers as it may deem advisable. Any number of offices may be held by the same person.

Section 2. The board of directors may appoint such other officers and agents as it desires who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the board.

Section 3. The officers of the Corporation shall hold office at the pleasure of the board of directors. Each officer shall hold his office until his successor is elected and qualified or until his earlier resignation or removal. Any officer may resign at any time upon written notice to the Corporation. Any officer elected or appointed by the board of directors may be removed at any time by the board of directors. Any vacancy occurring in any office of the Corporation by death, resignation, removal or otherwise shall be filled by the board of directors.

Section 4. The chairman of the board of directors shall preside at all meetings of the board of directors and shall perform such other duties as from time to time may be assigned to the chairman by the board of directors or the executive committee if there be one.

Section 5. The board of directors may designate one or more vice chairmen. The vice chairman or vice chairmen shall have and perform such duties as from time to time may be assigned to the vice chairman by the board of directors, the executive committee if there be one or the chairman of the board

of directors.

Section 6. The chief executive officer shall be the general and active manager of the business of the Corporation under the supervision of the board of directors or the executive committee if there be one and shall have all authority and power so to act. He may delegate such authority and power to other officers of the Corporation to the extent he deems appropriate from time to time. He shall have the general power to execute bonds, deeds and contracts in the name of the Corporation and to affix the seal or cause the seal to be affixed to all instruments requiring such except to the extent the signing and execution thereof shall be delegated by him or the board of directors or the executive committee if there be one to some other officer or agent of the Corporation.

Section 7. In the absence or disability of the chairman of the board, the president shall preside at meetings of the board of directors. The president shall have general power to execute bonds, deeds and contracts in the name of the Corporation and to affix the corporate seal. The president shall perform such other duties as may be assigned to him from time to time and have such other powers as the board of directors or the executive committee if there be one may from time to time prescribe.

Section 8. The vice presidents shall act under the direction of the chief executive officer or the president. They shall perform such duties and have such powers as the chief executive officer or the president or the board of directors or

the executive committee if there be one may from time to time prescribe. The board of directors or the executive committee if there be one may designate one or more executive vice presidents or may otherwise specify the order of seniority of the vice presidents.

Section 9. The secretary shall act under the discretion of the president. Subject to the direction of the president, he shall attend all meetings of the board of directors and all meetings of stockholders and record the proceedings in a book to be kept for that purpose and shall perform like duties for the committees designated by the board of directors when required. He shall give, or cause to be given, notice of all meetings of stockholders and special meetings of the board of directors, and shall perform such other duties as may be prescribed by the president or the board of directors. He shall keep in safe custody the seal of the Corporation and cause it to be affixed to any instrument requiring it.

Section 10. The assistant secretaries in the order of their seniority, unless otherwise determined by the president or the board of directors, shall, in the absence or disability of the secretary, perform the duties and exercise the powers of the secretary. They shall perform such other duties and have other powers as the president or the board of directors may from time to time prescribe.

Section 11. The treasurer shall act under the direction of the president. Subject to the direction of the president, he shall have the custody of the corporate funds and

securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all monies and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the board of directors. He shall disburse the funds of the Corporation as may be ordered by the president or the board of directors, taking proper vouchers for such disbursements, and shall render to the president and the board of directors, at its regular meetings, or when the board of directors so requires, an account of all his transactions as treasurer and of the financial condition of the Corporation.

Section 12. The assistant treasurers in the order of their seniority, unless otherwise determined by the president or the board of directors, shall, in the absence or disability of the treasurer, perform the duties and exercise the powers of the treasurer. They shall perform such other duties and have such other powers as the president or the board of directors may from time to time prescribe.

Section 13. The controller shall act under the direction of the president. Subject to the direction of the president, he shall be in charge of the accounts of the Corporation. The controller shall perform such other duties and have such other powers as the president or the board of directors may from time to time prescribe.

ARTICLE VI
Certificates of Stock

Section 1. Every holder of stock in the Corporation shall be entitled to have a certificate, signed by, or in the name of the Corporation by, the chairman of the board or the president or a vice president and the treasurer or an assistant treasurer or the secretary or an assistant secretary of the Corporation, certifying the number of shares owned by him in the Corporation.

Section 2. Any of or all the signatures on a certificate may be facsimile. In case any officer who has signed or whose facsimile signature has been placed upon a certificate shall cease to be such officer before such certificate is issued, it may be issued with the same effect as if he were such officer at the date of issue. The seal of the Corporation or a facsimile thereof may, but need not, be affixed to certificates of stock.

Section 3. The board of directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, upon the making of any affidavit of that fact by the person claiming the certificate or certificates to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the board of directors may, in its discretion and as a condition precedent to the issuance thereof, require the

owner of such lost stolen or destroyed certificate or certificates, or his legal representative, to give the Corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate or certificates alleged to have been lost, stolen or destroyed.

Section 4. Upon surrender to the Corporation or a transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, it shall be the duty of the Corporation, if it is satisfied that all provisions of the certificate of incorporation, of the by-laws and of the law regarding the transfer of shares have been duly complied with, to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

Section 5. The Corporation shall be entitled to recognize the person registered on its books as the owner of shares to be the exclusive owner for all purposes including voting and dividends, and the Corporation shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VII
Miscellaneous

Section 1. There may be set aside out of any funds of the Corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for the purpose of additional property, or for such other purpose as the director shall think conducive to the interest of the Corporation, and the directors may modify or abolish any such reserve.

Section 2. All checks or demands for money and notes of the Corporation shall be signed by such officer or officers or such other person or persons as the board of directors may from time to time designate.

Section 3. The fiscal year of the Corporation shall be fixed by resolution of the board of directors.

Section 4. The corporate seal shall have inscribed thereon the name of the Corporation, the year of its organization and the words "Corporate Seal, Delaware". The seal may be used by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

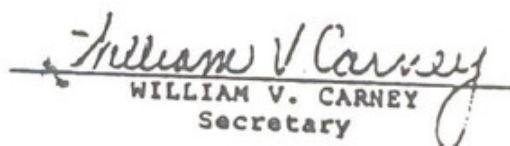
ARTICLE VIII

Amendments

Section 1. The by-laws may be amended by the stockholders at any annual or special meeting of stockholders, provided notice of intention to amend shall have been contained in the notice of the meeting.

Section 2. The board of directors by a majority vote of the whole board at any meeting may amend these by-laws, including by-laws adopted by the stockholders, provided the stockholders may from time to time specify particular provisions of the by-laws which shall not be amended by the board of directors.

These are the by-laws in effect as amended through November 1, 1989.


WILLIAM V. CARNEY
Secretary

(Corporate Seal)

ARTICLE VIII

Amendments

Section 1. The by-laws may be amended by the stockholders at any annual or special meeting of stockholders, provided notice of intention to amend shall have been contained in the notice of the meeting.

Section 2. The board of directors by a majority vote of the whole board at any meeting may amend these by-laws, including by-laws adopted by the stockholders, provided the stockholders may from time to time specify particular provisions of the by-laws which shall not be amended by the board of directors.



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FILED

OCT 12 1962

CERTIFICATE OF INCORPORATION
OF
PORTA SYSTEMS OVERSEAS CORP.

William C. Keenan
SECRETARY OF STATE

FIRST: The name of the Corporation is PORTA SYSTEMS OVERSEAS CORP.

SECOND: The registered office of the Corporation in the State of Delaware is to be located at 306 South State Street, City of Dover, County of Kent. Its registered agent at such address is United States Corporation Company.

THIRD: The purpose of the Corporation is to engage in any lawful acts or activities for which corporations may be organized under the General Corporation Law of Delaware.

FOURTH: The total number of shares of stock which the Corporation shall have authority to issue is One Thousand (1,000) designated as common stock and the par value of each such share of common stock is One Cent (\$.01), amounting in the aggregate to Ten Dollars (\$10).

FIFTH: The name of the incorporator is GWENDOYLN J. LEONARD and her mailing address is Wall Street Plaza, New York, New York 10005.

SIXTH: All corporate powers of the Corporation shall be exercised by or under the direction of the board of directors except as otherwise provided herein or by law.

In furtherance and not in limitation of the powers conferred by law the board of directors is expressly authorized:

- (i) to fix, abolish, determine and vary from time to time the amount or amounts to be set apart as reserves;
- (ii) to adopt, amend and repeal by-laws of the Corporation;
- (iii) to authorize and cause to be executed mortgages and liens, with or without limit as to amount, upon the real or personal property of the Corporation;
- (iv) from time to time to determine whether and to what extent, at what time and place, and under what conditions and regulations the accounts and books of the Corporation, or any of them, shall be open to the inspection of any stockholder; and no stockholder shall have any right to inspect any account or book or document of the Corporation except as conferred by statute or by-law or as authorized by resolution of the stockholders or board of directors;
- (v) to authorize the payment of compensation

to the directors for services to the Corporation, including fees for attendance at meetings of the board of directors or of any committee thereof and/or salaries for serving as such directors or committee members, and to determine the amount of such compensation;

- (vi) from time to time to formulate, establish, promote and carry out, and to amend, alter, change, revise, recall, repeal or abolish, a plan or plans for the participation by all or any of the employees, including directors and officers, of the Corporation, or of any corporation, company, association, trust or organization in which or in the welfare of which the Corporation has any interest, and those actively engaged in the conduct of the Corporation's business, in the profits, gains or business of the Corporation or of any branch or division thereof, as part of the Corporation's legitimate expenses, and/or for the furnishing to such employees, directors,

- officers or persons, or any of them, at the Corporation's expense, of medical services, insurance against accident, sickness or death, pensions during old age, disability or unemployment, education, housing, social services, recreation or other similar aids for their relief or general welfare, in such manner and upon such terms and conditions as the board of directors shall determine; and
- (vii) to authorize the guaranty by the Corporation of securities, evidences of indebtedness and obligations of other persons, firms, associations and corporations.

SEVENTH: No person shall be liable to the Corporation for any loss or damage suffered by it on account of any action taken or omitted to be taken by him as a director or officer of the Corporation in good faith, if such person (i) exercised or used the same degree of diligence, care and skill as an ordinarily prudent man would have exercised or used under the circumstances in the conduct of his own affairs, or (ii) took, or omitted to take, such action in reliance upon advice of counsel for the Corporation, or upon

statements made or information furnished by officers or employees of the Corporation which he had reasonable grounds to believe to be true, or upon a financial statement of the Corporation prepared by an officer or employee of the Corporation in charge of its accounts or certified by a public accountant or firm of public accountants.

EIGHTH: Any contract, transaction or act of the Corporation or of the board of directors which shall be approved or ratified by a majority of a quorum of the stockholders entitled to vote at any meeting shall be as valid and binding as though approved or ratified by every stockholder of the Corporation; but any failure of the stockholders to approve or ratify such contract, transaction or act, when and if submitted, shall not be deemed in any way to invalidate the same or to deprive the Corporation, its directors or officers of their right to proceed with such contract, transaction or act.

NINTH: Every person who was or is a party or is threatened to be made a party to or is involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or a person of whom he is the legal representative is or was a director or officer of the Corporation or is or was serving at the request of the

Corporation as a director or officer of another corporation, or as its representative in a partnership, joint venture, trust or other enterprise, shall be indemnified and held harmless by the Corporation to the fullest extent legally permissible under the General Corporation Law of the State of Delaware, as amended from time to time, against all expenses, liabilities and losses (including attorneys' fees, judgments, fines and amounts paid in settlement) reasonably incurred or suffered by him in connection therewith. Such right of indemnification shall be a contract right which may be enforced in any manner desired by such person. Such right of indemnification shall not be exclusive of any other right which such directors, officers or representatives may have or hereafter acquire and, without limiting the generality of such statement, they shall be entitled to their respective rights of indemnification under any by-laws, agreement, vote of stockholders, provision of law or otherwise, as well as their rights under this Article.

The board of directors may adopt by-laws from time to time with respect to indemnification to provide at all times the fullest indemnification permitted by the General Corporation Law of the State of Delaware, as amended from time to time, and may cause the Corporation to purchase and maintain insurance on behalf of any person who is or was a

director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director or officer of another corporation, or as its representative in a partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred in any such capacity or arising out of such status, whether or not the Corporation would have the power to indemnify such person against such liability.

TENTH. Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under the provisions of Section 291 of Title 8 of the Delaware Code or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under the provisions of Section 279 of Title 8 of the Delaware Code order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number

representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

ELEVENTH: Elections of directors need not be by written ballot unless the by-laws of the Corporation shall so provide.

TWELFTH: Any director or the entire board of directors may be removed, with or without cause, at any time by the holders of a majority of the shares then entitled to vote at an election of directors, and the vacancy in the board of directors caused by such removal may be filled by the stockholders at the time of such removal.

THIRTEENTH: The Corporation reserves the right to amend, alter, change or repeal any provision contained in this certificate of incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred

upon stockholders, directors and other persons herein are granted subject to this reservation.

IN WITNESS WHEREOF, the undersigned, being the incorporator hereinbefore named, for the purpose of forming a corporation pursuant to the General Corporation Law of the State of Delaware, does make this certificate this 8th day of October 1982.

Dwendolyn J. Leonard

State of Delaware
Secretary of State
Division of Corporations
Delivered 03:16 PM 10/06/2010
FILED 03:16 PM 10/06/2010
SRV 100973536 - 0945989 FILE

**CERTIFICATE OF AMENDMENT
TO
CERTIFICATE OF INCORPORATION
OF
PORTA SYSTEMS OVERSEAS CORP.**

The undersigned, Michael A. Tancredi, hereby certifies that:

1. He is the Secretary and Treasurer of PORTA SYSTEMS OVERSEAS CORP., a corporation existing under the laws of the State of Delaware (the "Corporation"), and is duly authorized by the written consent of the Board of Directors of the Corporation to execute this instrument.

2. This Certificate of Amendment of the Certificate of Incorporation was duly approved by the Corporation's Board of Directors, in accordance with the applicable provisions of Section 141 and 242 of the General Corporation Law of the State of Delaware, and duly adopted by written consent of the sole shareholder of the outstanding shares of the common stock of the Corporation, in accordance with the applicable provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

3. The certificate of incorporation of the Corporation is hereby amended by replacing Article FIRST, in its entirety, with the following:

"FIRST: The name of the Corporation is North Hills Signal Processing Overseas Corp."

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment of the Corporation's Certificate of Incorporation, to be executed this 4th day of October 2010.

PORTA SYSTEMS OVERSEAS CORP.

By: /s/ Michael A. Tancredi
Name: Michael A. Tancredi
Title: Secretary and Treasurer

BY-LAWS
OF
PORTA SYSTEMS OVERSEAS CORP.

ARTICLE I

Offices

Section 1. The registered office of the Corporation shall be in Dover, Delaware.

Section 2. The Corporation may have offices also at such other places within and without the State of Delaware as the board of directors may from time to time determine or as the business of the Corporation may require.

ARTICLE II

Meetings of Stockholders

Section 1. Meetings of stockholders shall be held at such place, within or without the State of Delaware, as shall be designated from time to time by the board of directors.

Section 2. Annual meetings of stockholders shall, unless otherwise provided by the board of directors, be held on the fourth Thursday in May in each year if not a legal holiday, and if a legal holiday, then on the next full business day following, at which they shall elect a board of directors and transact such other business as may properly be brought before the meeting.

Section 3. Written notice of the annual meeting, stating the place, date and hour thereof, shall be given to each stockholder entitled to vote thereat not less than ten or more than sixty days before the date of the meeting.

Section 4. The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order with the address of and the number of voting shares registered in the name of each. Such list shall be open for ten days prior to any meeting of stockholders for the purpose of examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of meeting, or, if not so specified, at the place where the meeting is to be held, and shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

Section 5. Special meetings of stockholders may be called by the board of directors, by the president or by stockholders owning a majority in amount of the entire

capital stock of the Corporation issued and outstanding and entitled to vote.

Section 6. Written notice of a special meeting of stockholders, stating the place, date, hour and purpose thereof, shall be given by the secretary to each stockholder entitled to vote thereat not less than ten nor more than sixty days before the date fixed for the meeting. Such notice shall state the purpose or purposes of the proposed meeting.

Section 7. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 8. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum shall not be present or represented at any meeting of stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time without notice other than announcement at the meeting if the adjournment is not for

more than thirty days and a new record date is not fixed for the adjourned meeting, until a quorum shall be present or represented. If a quorum shall be present or represented at such adjourned meeting any business may be transacted which might have been transacted at the original meeting.

Section 9. When a quorum is present at any meeting, the affirmative vote of a majority of the votes cast shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the certificate of incorporation a different vote is required, in which case such express provision shall govern and control the decision of such question.

Section 10. Each stockholder shall at every meeting of stockholders be entitled to one vote in person or by proxy for each share of the capital stock having voting power held by such stockholder, but no proxy shall be voted on after three years from its date, unless the proxy provides for a longer period. Two inspectors of election may be appointed by the board of directors, or if not so appointed, then by the presiding officer of the meeting. If inspectors of election are appointed, all questions regarding the qualification of voters, the validity of proxies and the acceptance or rejection of votes shall be decided by such inspectors of election.

Section 11. Whenever the vote of stockholders at a meeting thereof is required or permitted to be taken for or in connection with any corporate action, by any provisions of the statutes, the meeting and vote of stockholders may be dispensed with if all of the stockholders who would have been entitled to vote, or less than all but not less than the holders of a majority of the stock entitled to vote, upon the action if such meeting were held shall consent in writing to such corporate action being taken; provided that the written consent shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted, and provided that prompt notice must be given to all stockholders of the taking of corporate action without a meeting and by less than unanimous written consent.

ARTICLE III

Directors

Section 1. The number of directors which shall constitute the whole board shall be five. By amendment of this by-law the number may be increased or decreased from time to time by the board of directors or the stockholders within the limits permitted by law, but no decrease in the

number of directors shall change the term of any director in office at the time thereof. The directors shall be elected at the annual meeting of stockholders, except as provided in Section 2 of this Article, and each director shall hold office until his successor is elected and qualified or until his earlier resignation or removal. Any director may resign at any time upon written notice to the Corporation. Any director or the entire board of directors may be removed, with or without cause, at any time by the holders of a majority of the shares then entitled to vote at an election of directors, and the vacancy in the board of directors caused by such removal may be filled by the stockholders at the time of such removal. Directors need not be stockholders.

Section 2. Vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, and each of the directors so chosen shall hold office until the next annual election and until his successor is elected and qualified or until his earlier resignation or removal.

Section 3. The business and affairs of the Corporation shall be managed by or under the direction of its board of directors which shall exercise all such powers of the Corporation and do all such lawful acts and things as are

not by statute or by the certificate of incorporation or by these by-laws directed or required to be exercised or done by the stockholders.

Section 4. The first meeting of each newly elected board of directors shall be held immediately following the adjournment of the annual meeting of stockholders and at the place thereof. No notice of such meeting shall be necessary to the directors in order legally to constitute the meeting, provided a quorum shall be present. In the event such meeting is not so held, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the board of directors.

Section 5. The board of directors of the Corporation or any committee thereof may hold meetings, both regular and special, either within or without the State of Delaware. Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board of directors. Special meetings of the board of directors may be called by the president, and the president or the secretary shall call a special meeting upon request of two directors. If given personally, by telephone or by telegram, the notice shall be

given at least the day prior to the meeting. Notice may be given by mail if it is mailed at least three days before the meeting. The notice need not specify the business to be transacted. In the event of an emergency which in the judgment of the president requires immediate action, a special meeting may be convened without notice, consisting of those directors who are immediately available in person or by telephone and can be joined in the meeting in person or by conference telephone. The actions taken at such a meeting shall be valid if at least a quorum of the directors' participates either personally or conference telephone.

Section 6. At meetings of the board of directors, three of the directors at the time in office but in no event less than one-third of the full number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors. If a quorum shall not be present at any meeting of the board of directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

Section 7. The board of directors may, by resolution passed by a majority of the whole board, designate one

or more committees of the board of directors, each committee to consist of one or more of the directors of the Corporation, which, to the extent provided in the resolution, shall have and may exercise the powers of the board of directors in the management of the business and affairs of the Corporation, including the power and authority to declare a dividend and to authorize the issuance of stock, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority to amend the certificate of incorporation, adopt an agreement of merger or consolidation, recommend to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommend to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amend the by-laws of the Corporation. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the board of directors. Unless the board of directors designates one or more directors as alternate members of any committee, who may replace an absent or disqualified member at any meeting of the committee, the members of any such committee present at any meeting and not disqualified from voting may, whether or not they constitute a quorum, unanimously appoint another member of the board of

directors to act at the meeting in the place of any absent or disqualified member of such committee. At meetings of any such committee, a majority of the members or alternate members of such committee shall constitute a quorum for the transaction of business and the act of a majority of members or alternate members present at any meeting at which there is a quorum shall be the act of the committee.

Section 8. The committees shall keep regular minutes of their proceedings.

Section 9. Any action required or permitted to be taken at any meeting of the board of directors or of any committee thereof may be taken without a meeting if a written consent thereto is signed by all members of the board or of such committees, as the case may be, and such written consent is filed with the minutes of proceedings of the board or committee.

Section 10. The members of the board of directors or any committee thereof may participate in a meeting of such board or committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other and such participation shall constitute presence in person at such meeting.

Section 11. The directors may be paid their expenses of attendance at each meeting of the board of directors and may be paid a fixed sum for attendance at each meeting of the board of directors or a stated salary as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like reimbursement and compensation for attending committee meetings.

ARTICLE IV

Notices

Section 1. Notices to directors and stockholders mailed to them at their addresses appearing on the books of the Corporation shall be deemed to be given at the time when deposited in the United States mail.

Section 2. Whenever any notice is required to be given under the provisions of the statutes or of the certificate of incorporation or of these by-laws, waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent of notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting except when the person attends a meeting for the

express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

ARTICLE V

Officers

Section 1. The officers of the Corporation shall be chosen by the board of directors at its first meeting after each annual meeting of stockholders and shall be a chairman of the board, a president, a secretary and a treasurer. The board of directors may choose also such vice presidents and additional officers or assistant officers as it may deem advisable. Any number of offices may be held by the same person.

Section 2. The board of directors may appoint such other officers and agents as it desires who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the board.

Section 3. The officers of the Corporation shall hold office at the pleasure of the board of directors. Each officer shall hold his office until his successor is elected and qualified or until his earlier resignation or removal. Any officer may resign at any time upon written notice to the Corporation. Any officer elected or appointed by the board

of directors may be removed at any time by the board of directors. Any vacancy occurring in any office of the Corporation by death, resignation, removal or otherwise shall be filled by the board of directors.

Section 4. The chairman of the board shall be the chief executive officer of the Corporation, shall preside at all meetings of stockholders and of the board of directors, shall have general and active management of the business of the Corporation under the supervision of the board of directors and shall have all authority and power so to act. He may delegate such authority and power to other officers of the Corporation to the extent he deems appropriate from time to time. He shall execute on behalf of the Corporation and may affix the seal or cause the seal to be affixed to all instruments requiring such execution except to the extent the signing and execution thereof shall be expressly delegated by the board of directors to some other officer or agent of the Corporation.

Section 5. The president shall be the chief operating officer of the Corporation, shall in the absence or disability of the chairman and vice chairman of the board of directors perform the duties and exercise the powers of the chairman, and shall act under the supervision of the chief executive officer, shall perform such duties as may be assigned to him from time to time by the chief executive

officer, and shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

Section 6. The vice presidents shall act under the direction of the president and in the absence or disability of the president shall perform the duties and exercise the powers of the president. They shall perform such other duties and have such other powers as the president or the board of directors may from time to time prescribe. The board of directors may designate one or more executive vice presidents or may otherwise specify the order of seniority of the vice presidents and in that event the duties and powers of the president shall descend to the vice presidents in the specified order of seniority.

Section 7. The secretary shall act under the direction of the president. Subject to the direction of the president he shall attend all meetings of the board of directors and all meetings of stockholders and record the proceedings in a book to be kept for that purpose and shall perform like duties for the committees designated by the board of directors when required. He shall give, or cause to be given, notice of all meetings of stockholders and special meetings of the board of directors, and shall perform such other duties as may be prescribed by the president or the board of directors. He shall keep in safe custody the seal

of the Corporation and cause it to be affixed to any instrument requiring it.

Section 8. The assistant secretaries in the order of their seniority, unless otherwise determined by the president or the board of directors, shall, in the absence or disability of the secretary, perform the duties and exercise the powers of the secretary. They shall perform such other duties and have such other powers as the president or the board of directors may from time to time prescribe.

Section 9. The treasurer shall act under the direction of the president. Subject to the direction of the president he shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the board of directors. He shall disburse the funds of the corporation as may be ordered by the president or the board of directors, taking proper vouchers for such disbursements, and shall render to the president and the board of directors, at its regular meetings, or when the board of directors so requires, an account of all his transactions as treasurer and of the financial condition of the Corporation.

Section 10. The assistant treasurers in the order of their seniority, unless otherwise determined by the president or the board of directors, shall in the absence or disability of the treasurer, perform the duties and exercise the powers of the treasurer. They shall perform such other duties and have such other powers as the president or the board of directors may from time to time prescribe.

Section 11. The comptroller shall act under the direction of the president. Subject under the direction of the president, he shall be in charge of the accounts of the Corporation. When the board of directors so requires, he shall prepare or have prepared appropriate financial statements for submission to the board of directors or the stockholders. He shall perform such other duties and have such other powers as the president or the board of directors may from time to time prescribe.

ARTICLE VI

Certificates of Stock

Section 1. Every holder of stock in the corporation shall be entitled to have a certificate, signed by, or in the name of the Corporation by, the president or a vice president and the treasurer or an assistant treasurer or the secretary or an assistant secretary of the Corporation, certifying the number of shares owned by him in the Corporation.

Section 2. Any of or all the signatures on a certificate may be a facsimile. In case any officer who has signed or whose facsimile signature has been placed upon a certificate shall cease to be such officer before such certificate is issued, it may be issued with the same effect as if he were such officer at the date of issue. The seal of the Corporation or a facsimile thereof may, but need not, be affixed to certificates of stock.

Section 3. The board of directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, upon the making of any affidavit of that fact by the person claiming the certificate or certificates to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the board of directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to give the Corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate or certificates alleged to have been lost, stolen or destroyed.

Section 4. Upon surrender to the Corporation or a transfer agent of the Corporation of a certificate for shares

duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, it shall be the duty of the Corporation, if it is satisfied that all provisions of the certificate of incorporation, of the by-laws and of the law regarding the transfer of shares have been duly complied with, to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

Section 5. The Corporation shall be entitled to recognize the person registered on its books as the owner of shares to be the exclusive owner for all purposes including voting and dividends, and the Corporation shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

Section 6. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the board of directors may fix, in advance, a record

date, which shall not be more than sixty or less than ten days before the date of such meeting, and not more than sixty days prior to any other action. A determination of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

ARTICLE VII

Miscellaneous

Section 1. There may be set aside out of any funds of the Corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for the purchase of additional property, or for such other purpose as the director shall think conducive to the interest of the Corporation, and the directors may modify or abolish any such reserve.

Section 2. All checks or demands for money and notes of the Corporation shall be signed by such officer or officers or such other person or persons as the board of directors may from time to time designate.

Section 3. The fiscal year of the Corporation shall be fixed by resolution of the board of directors.

Section 4. The corporate seal shall have inscribed thereon the name of the Corporation, the year of its organiza-

tion and the words "Corporate Seal, Delaware". The seal may be used by causing it or a facsimile thereof to be impressed, affixed or in any other manner reproduced.

ARTICLE VIII

Indemnification

Every person who was or is a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or a person of whom he is the legal representative is or was a director or officer of the Corporation or is or was serving at the request of the Corporation or for its benefit as a director or officer of another Corporation, or as its representative in a partnership, joint venture, trust or other enterprise, shall be indemnified and held harmless to the fullest extent legally permissible under and pursuant to any procedure specified in the General Corporation Law of the State of Delaware, as amended from time to time, against all expenses, liabilities and losses (including attorneys' fees, judgments, fines and amounts paid or to be paid in settlement) reasonably incurred or suffered by him in connection therewith. Such right of indemnification shall be a contract right which may be enforced in any manner desired by such person. Such right of indemnification shall not be exclusive of any other right which such directors, officers or representatives may have or

hereafter acquire and, without limiting the generality of such statement, they shall be entitled to their respective rights of indemnification under any by-law, agreement, vote of stockholders, provision of law or otherwise, as well as their rights under this Article.

The board of directors may cause the Corporation to purchase and maintain insurance on behalf of any person who is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director or officer of another corporation, or as its representative in a partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred in any such capacity or arising out of such status, whether or not the Corporation would have the power to indemnify such person.

The board of directors may from time to time adopt further by-laws with respect to indemnification and may amend these and such by-laws to provide at all times the fullest indemnification permitted by the General Corporation Law of the State of Delaware, as amended from time to time.

ARTICLE IX

Amendments

Section 1. The by-laws may be amended by the stockholders at any annual or special meeting of stockholders,

provided notice of intention to amend shall have been contained in the notice of the meeting.

Section 2. The board of directors by a majority vote of the whole board at any meeting may amend these by-laws, including by-laws adopted by the stockholders, provided the stockholders may from time to time specify particular provisions of the by-laws which shall not be amended by the board of directors.

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED HEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

ELEVENTH SUPPLEMENTAL INDENTURE

Dated as of May 9, 2017
to
Indenture
Dated as of October 15, 2012
by and among
TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED THEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

5.50% Senior Subordinated Notes due 2020
of TransDigm Inc.

This **ELEVENTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of May 9, 2017, is entered into by and among North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (together with North Hills, the “**Guaranteeing Subsidiaries**”), TransDigm Inc., a Delaware corporation (the “**Company**”), TransDigm Group Incorporated, a Delaware corporation (“**TD Group**”), Adams Rite Aerospace, Inc., a California corporation (“**Adams Rite**”), MarathonNorco Aerospace, Inc., a Delaware corporation (“**Marathon**”), Champion Aerospace LLC, a Delaware limited liability company (“**Champion**”), Avionic Instruments LLC, a Delaware limited liability company (“**Avionic**”), Skurka Aerospace Inc., a Delaware corporation (“**Skurka**”), CDA InterCorp LLC, a Florida limited liability company (“**CDA**”), Aviation Technologies, Inc., a Delaware corporation (“**ATI**”), AvtechTyeec, Inc., a Washington corporation (“**Avtech**”), Transicoil LLC, a Delaware limited liability company (“**Transicoil**”), AeroControlex Group, Inc., a Delaware corporation (“**AeroControlex**”), Bruce Aerospace Inc., a Delaware corporation (“**Bruce Aerospace**”), CEF Industries, LLC, a Delaware limited liability company (“**CEF**”), Acme Aerospace, Inc., a Delaware corporation (“**Acme**”), Dukes Aerospace, Inc., a Delaware corporation (“**Dukes**”), Semco Instruments, Inc., a Delaware corporation, (“**Semco**”), Hartwell Corporation, a California corporation (“**Hartwell**”), McKechnie Aerospace DE, Inc., a Delaware corporation (“**McKechnie Aerospace DE**”), McKechnie Aerospace Holdings, Inc., a Delaware corporation (“**McKechnie Aerospace Holdings**”), McKechnie Aerospace Investments, Inc., a Delaware corporation (“**McKechnie Aerospace Investments**”), McKechnie Aerospace US LLC, a Delaware limited liability company (“**McKechnie Aerospace US**”), Texas Rotronics, Inc., a Texas corporation (“**Rotronics**”), Electromech Technologies LLC (formerly Western Sky Industries, LLC), a Delaware limited liability company (“**Electromech**”), Schneller LLC, a Delaware limited liability company (“**Schneller**”), HARCO LLC (formerly Harco Laboratories, Incorporated), a Connecticut limited liability company (“**HARCO**”), AmSafe Global Holdings, Inc., a Delaware corporation (“**AmSafe Global**”), Bridport Holdings, Inc., a Delaware corporation (“**Bridport Holdings**”), AmSafe, Inc., a Delaware corporation (“**AmSafe Inc.**”), Shield Restraint Systems, Inc. (formerly AmSafe Commercial Products, Inc.), a Delaware corporation (“**Shield**”), Bridport-Air Carrier, Inc., a Washington corporation (“**Bridport-Air**”), Bridport Erie Aviation, Inc., a Delaware corporation (“**Bridport Erie**”), Arkwin Industries, Inc., a New York corporation (“**Arkwin**”), Whippany Actuation Systems, LLC, a Delaware limited liability company (“**Whippany**”), Aerosonic LLC, a Delaware limited liability company (“**Aerosonic**”), Avionics Specialties, Inc., a Virginia corporation (“**Avionics Specialties**”), Airborne Global, Inc., a Delaware corporation (“**Airborne Global**”), Airborne Holdings, Inc., a Delaware Corporation (“**Airborne Holdings**”), Airborne Acquisition, Inc., a Delaware corporation (“**Airborne Acquisitions**”), Airborne Systems NA Inc., a Delaware corporation (“**Airborne Systems NA**”), Airborne Systems North America Inc., a Delaware corporation (“**Airborne Systems North America**”), Airborne Systems North America of CA Inc., a Delaware corporation (“**Airborne Systems North America CA**”), Airborne Systems North America of NJ Inc., a New Jersey corporation (“**Airborne Systems North America NJ**”), Telair US LLC, a Delaware limited liability company (“**Telair US**”), Telair International LLC, a Delaware limited liability company (“**Telair International**”), Pexco Aerospace, Inc., a Delaware corporation (“**Pexco Aerospace**”), PneuDrualics, Inc., a California corporation (“**PneuDrualics**”), Breeze-Eastern LLC, a Delaware limited liability company (“**Breeze-Eastern**”), ILC Holdings, Inc., a Delaware corporation (“**ILC Holdings**”), ILC Industries, LLC, a Delaware limited liability company (“**ILC Industries**”), Data Device Corporation, a Delaware corporation (“**DDC**”), Beta Transformer Technology Corporation, a New York corporation (“**Beta Corporation**”), Beta Transformer Technology LLC, a Delaware limited liability company (“**Beta LLC**”), Young & Franklin Inc., a New York corporation (“**Young & Franklin**”), Tactair Fluid Controls, Inc., a New York corporation (“**Tactair**”), Johnson Liverpool LLC, a Delaware limited liability company (“**Johnson Liverpool**”), SCHROTH Safety Products LLC, a Delaware limited liability company (“**SCHROTH**”) and Interiors In Flight LLC, a Delaware limited liability company (collectively with TD Group, Adams Rite, Marathon, Champion, Avionic, Skurka, CDA, ATI, Avtech, Transicoil, AeroControlex, Bruce Aerospace, CEF, Acme, Dukes, Semco, Hartwell, McKechnie Aerospace DE, McKechnie Aerospace Holdings, McKechnie Aerospace Investments, McKechnie Aerospace US, Rotronics, Electromech, Schneller, HARCO, AmSafe Global, Bridport Holdings, AmSafe Inc., Shield, Bridport-Air, Bridport Erie, Arkwin, Whippany, Aerosonic, Avionics Specialties, Airborne Global, Airborne Holdings, Airborne Acquisitions, Airborne Systems NA, Airborne Systems North America, Airborne Systems North America CA, Airborne Systems North America NJ, Telair US, Telair International, Pexco Aerospace, PneuDrualics, Breeze-Eastern, ILC Holdings, ILC Industries, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool and SCHROTH the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below. Capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in the Indenture.

WITNESSETH:

WHEREAS, the Company and the Existing Guarantors have heretofore executed and delivered to the Trustee an indenture, dated as of October 15, 2012 (as supplemented by the First Supplemental Indenture thereto, dated as of June 5, 2013, the Second Supplemental Indenture thereto, dated as of June 26, 2013, the Third Supplemental Indenture thereto, dated as of December 19, 2013, the Fourth Supplemental Indenture thereto, dated as of April 9, 2015, the Fifth Supplemental Indenture thereto, dated as of June 12, 2015, the Sixth Supplemental Indenture thereto, dated as of August 28, 2015, the Seventh Supplemental Indenture thereto, dated as of April 1, 2016, the Eighth Supplemental Indenture thereto, dated as of July 8, 2016, the Ninth Supplemental Indenture thereto, dated as of October 28, 2016, and the Tenth Supplemental Indenture thereto, dated as of March 31, 2017, the “*Indenture*”), providing for the issuance by the Company of 5.50% Senior Subordinated Notes due 2020 (the “*Notes*”) and the guarantees thereof by each of the Existing Guarantors;

WHEREAS, the Indenture provides that under certain circumstances described therein, newly created or acquired Domestic Restricted Subsidiaries shall execute and deliver to the Trustee a supplemental indenture to the Indenture providing for a senior subordinated guarantee of payment of the Notes by such Domestic Restricted Subsidiary (the “*Guarantee*”);

WHEREAS, all things necessary to make this Supplemental Indenture the legal, valid and binding obligation of the Company, the Existing Guarantors and the Guaranteeing Subsidiaries have been done; and

WHEREAS, pursuant to Section 9.01(g) of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture without the consent of the Holders of the Notes.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, each of the Guaranteeing Subsidiaries covenants and agrees for the equal and ratable benefit of the Holders of the Notes as follows:

1. **CAPITALIZED TERMS.** Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.
2. **GUARANTEE, ETC.** Each of the Guaranteeing Subsidiaries hereby agrees that from and after the date hereof it shall be a Guarantor under the Indenture and be bound by the terms thereof applicable to Guarantors and shall be entitled to all of the rights and subject to all the obligations of a Guarantor thereunder.
3. **RATIFICATION OF INDENTURE; SUPPLEMENTAL INDENTURE PART OF INDENTURE.** The Indenture is in all respects ratified and confirmed and all the terms, conditions and provisions thereof shall remain in full force and effect. This Supplemental Indenture shall form a part of the Indenture for all purposes, and every holder of Notes heretofore or hereafter authenticated and delivered shall be bound hereby.
4. **EXECUTION AND DELIVERY.** Each of the Guaranteeing Subsidiaries agrees that the Guarantee granted by it pursuant to the terms hereof shall remain in full force and effect notwithstanding any failure to endorse on each Note a notation of such Guarantee.
5. **NO RECOURSE AGAINST OTHERS.** No past, present or future director, officer, employee, incorporator, stockholder or agent of any of the Guaranteeing Subsidiaries (or any successor entity) (other than the Company or the Existing Guarantors), as such, shall have any liability for any obligations of the Company, TD Group, the Guaranteeing Subsidiaries or any other Guarantor under the Notes, any Guarantee, the Indenture or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of the Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.

6. **NEW YORK LAW TO GOVERN.** THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE AND THE GUARANTEE GRANTED HEREUNDER WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.
7. **COUNTERPART ORIGINALS.** The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.
8. **EFFECT OF HEADINGS.** The Section headings have been inserted for convenience of reference only, are not to be considered part of this Supplemental Indenture and shall in no way modify or restrict any of the terms or provisions hereof.
9. **THE TRUSTEE.** The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Guaranteeing Subsidiaries, the Existing Guarantors and the Company.

[Signature page follows.]

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

NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

TRANSDIGM INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President,
Chief Financial Officer and Treasurer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRUCE AEROSPACE, INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace Investments, Inc., as its sole member
HARTWELL CORPORATION
JOHNSON LIVERPOOL LLC
By: Young & Franklin Inc., as its sole member
MARATHONNORCO AEROSPACE INC.
MCKECHNIE AEROSPACE INVESTMENTS, INC.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
TACTAIR FLUID CONTROLS, INC.
TEXAS ROTRONICS, INC.
YOUNG & FRANKLIN INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

[Signature page to the Eleventh Supplemental Indenture – 2020 Notes]

AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AVIATION TECHNOLOGIES, INC.
BRIDPORT-AIR CARRIER, INC.
BRIDPORT HOLDINGS, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE US LLC
By: McKechnie Aerospace DE, Inc., as its sole member
TRANSICOIL LLC
By: Aviation Technologies, Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President and Chief Executive Officer

AEROSONIC LLC
AVIONIC INSTRUMENTS LLC
BREEZE-EASTERN LLC
CDA INTERCORP LLC
CEF INDUSTRIES, LLC
CHAMPION AEROSPACE LLC
HARCO LLC
INTERIORS IN FLIGHT LLC
SCHNELLER LLC
SCHROTH SAFETY PRODUCTS LLC
TELAIR US LLC
TELAIR INTERNATIONAL LLC
By: Telair US LLC, as its sole member
WHIPPANY ACTUATION SYSTEMS, LLC
Each By: TransDigm Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AVIONICS SPECIALTIES, INC.
ILC HOLDINGS, INC.
ILC INDUSTRIES, LLC
By: ILC Holdings, Inc., as its sole member
MCKECHNIE AEROSPACE HOLDINGS, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President

BRIDPORT ERIE AVIATION, INC.
By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Vice President and Treasurer

[Signature page to the Eleventh Supplemental Indenture – 2020 Notes]

AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.

By: /s/ Halle F. Terrion
Name: Halle F. Terrion
Title: Secretary

[Signature page to the Eleventh Supplemental Indenture – 2020 Notes]

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS TRUSTEE

By: /s/ Lawrence M. Kusch
Name: Lawrence M. Kusch
Title: Vice President

[Signature page to the Eleventh Supplemental Indenture – 2020 Notes]

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED HEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

EIGHTH SUPPLEMENTAL INDENTURE

Dated as of May 9, 2017

to

Indenture

Dated as of June 4, 2014

by and among

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED THEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

6.500% Senior Subordinated Notes due 2024
of TransDigm Inc.

This **EIGHTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of May 9, 2017, is entered into by and among North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (together with North Hills, the “**Guaranteeing Subsidiaries**”), TransDigm Inc., a Delaware corporation (the “**Company**”), TransDigm Group Incorporated, a Delaware corporation (“**TD Group**”), Adams Rite Aerospace, Inc., a California corporation (“**Adams Rite**”), MarathonNorco Aerospace, Inc., a Delaware corporation (“**Marathon**”), Champion Aerospace LLC, a Delaware limited liability company (“**Champion**”), Avionic Instruments LLC, a Delaware limited liability company (“**Avionic**”), Skurka Aerospace Inc., a Delaware corporation (“**Skurka**”), CDA InterCorp LLC, a Florida limited liability company (“**CDA**”), Aviation Technologies, Inc., a Delaware corporation (“**ATI**”), AvtechTyeec, Inc., a Washington corporation (“**Avtech**”), Transicoil LLC, a Delaware limited liability company (“**Transicoil**”), AeroControlex Group, Inc., a Delaware corporation (“**AeroControlex**”), Bruce Aerospace Inc., a Delaware corporation (“**Bruce Aerospace**”), CEF Industries, LLC, a Delaware limited liability company (“**CEF**”), Acme Aerospace, Inc., a Delaware corporation (“**Acme**”), Dukes Aerospace, Inc., a Delaware corporation (“**Dukes**”), Semco Instruments, Inc., a Delaware corporation, (“**Semco**”), Hartwell Corporation, a California corporation (“**Hartwell**”), McKechnie Aerospace DE, Inc., a Delaware corporation (“**McKechnie Aerospace DE**”), McKechnie Aerospace Holdings, Inc., a Delaware corporation (“**McKechnie Aerospace Holdings**”), McKechnie Aerospace Investments, Inc., a Delaware corporation (“**McKechnie Aerospace Investments**”), McKechnie Aerospace US LLC, a Delaware limited liability company (“**McKechnie Aerospace US**”), Texas Rotronics, Inc., a Texas corporation (“**Rotronics**”), Electromech Technologies LLC (formerly Western Sky Industries, LLC), a Delaware limited liability company (“**Electromech**”), Schneller LLC, a Delaware limited liability company (“**Schneller**”), HARCO LLC (formerly Harco Laboratories, Incorporated), a Connecticut limited liability company (“**HARCO**”), AmSafe Global Holdings, Inc., a Delaware corporation (“**AmSafe Global**”), Bridport Holdings, Inc., a Delaware corporation (“**Bridport Holdings**”), AmSafe, Inc., a Delaware corporation (“**AmSafe Inc.**”), Shield Restraint Systems, Inc. (formerly AmSafe Commercial Products, Inc.), a Delaware corporation (“**Shield**”), Bridport-Air Carrier, Inc., a Washington corporation (“**Bridport-Air**”), Bridport Erie Aviation, Inc., a Delaware corporation (“**Bridport Erie**”), Arkwin Industries, Inc., a New York corporation (“**Arkwin**”), Whippany Actuation Systems, LLC, a Delaware limited liability company (“**Whippany**”), Aerosonic LLC, a Delaware limited liability company (“**Aerosonic**”), Avionics Specialties, Inc., a Virginia corporation (“**Avionics Specialties**”), Airborne Global, Inc., a Delaware corporation (“**Airborne Global**”), Airborne Holdings, Inc., a Delaware Corporation (“**Airborne Holdings**”), Airborne Acquisition, Inc., a Delaware corporation (“**Airborne Acquisitions**”), Airborne Systems NA Inc., a Delaware corporation (“**Airborne Systems NA**”), Airborne Systems North America Inc., a Delaware corporation (“**Airborne Systems North America**”), Airborne Systems North America of CA Inc., a Delaware corporation (“**Airborne Systems North America CA**”), Airborne Systems North America of NJ Inc., a New Jersey corporation (“**Airborne Systems North America NJ**”), Telair US LLC, a Delaware limited liability company (“**Telair US**”), Telair International LLC, a Delaware limited liability company (“**Telair International**”), Pexco Aerospace, Inc., a Delaware corporation (“**Pexco Aerospace**”), PneuDrualics, Inc., a California corporation (“**PneuDrualics**”), Breeze-Eastern LLC, a Delaware limited liability company (“**Breeze-Eastern**”), ILC Holdings, Inc., a Delaware corporation (“**ILC Holdings**”), ILC Industries, LLC, a Delaware limited liability company (“**ILC Industries**”), Data Device Corporation, a Delaware corporation (“**DDC**”), Beta Transformer Technology Corporation, a New York corporation (“**Beta Corporation**”), Beta Transformer Technology LLC, a Delaware limited liability company (“**Beta LLC**”), Young & Franklin Inc., a New York corporation (“**Young & Franklin**”), Tactair Fluid Controls, Inc., a New York corporation (“**Tactair**”), Johnson Liverpool LLC, a Delaware limited liability company (“**Johnson Liverpool**”), SCHROTH Safety Products LLC, a Delaware limited liability company (“**SCHROTH**”) and Interiors In Flight LLC, a Delaware limited liability company (collectively with TD Group, Adams Rite, Marathon, Champion, Avionic, Skurka, CDA, ATI, Avtech, Transicoil, AeroControlex, Bruce Aerospace, CEF, Acme, Dukes, Semco, Hartwell, McKechnie Aerospace DE, McKechnie Aerospace Holdings, McKechnie Aerospace Investments, McKechnie Aerospace US, Rotronics, Electromech, Schneller, HARCO, AmSafe Global, Bridport Holdings, AmSafe Inc., Shield, Bridport-Air, Bridport Erie, Arkwin, Whippany, Aerosonic, Avionics Specialties, Airborne Global, Airborne Holdings, Airborne Acquisitions, Airborne Systems NA, Airborne Systems North America, Airborne Systems North America CA, Airborne Systems North America NJ, Telair US, Telair International, Pexco Aerospace, PneuDrualics, Breeze-Eastern, ILC Holdings, ILC Industries, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool and SCHROTH the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below. Capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in the Indenture.

WITNESSETH:

WHEREAS, the Company and the Existing Guarantors have heretofore executed and delivered to the Trustee an indenture, dated as of June 4, 2014 (as supplemented by the First Supplemental Indenture thereto, dated as of April 9, 2015, the Second Supplemental Indenture thereto, dated as of June 12, 2015, the Third Supplemental Indenture thereto, dated as of August 28, 2015, the Fourth Supplemental Indenture thereto, dated as of April 1, 2016, the Fifth Supplemental Indenture thereto, dated as of July 8, 2016, the Sixth Supplemental Indenture thereto, dated as of October 28, 2016, and the Seventh Supplemental Indenture thereto, dated as of March 31, 2017, the “*Indenture*”), providing for the issuance by the Company of 6.500% Senior Subordinated Notes due 2024 (the “*Notes*”) and the guarantees thereof by each of the Existing Guarantors;

WHEREAS, the Indenture provides that under certain circumstances described therein, newly created or acquired Domestic Restricted Subsidiaries shall execute and deliver to the Trustee a supplemental indenture to the Indenture providing for a senior subordinated guarantee of payment of the Notes by such Domestic Restricted Subsidiary (the “*Guarantee*”);

WHEREAS, all things necessary to make this Supplemental Indenture the legal, valid and binding obligation of the Company, the Existing Guarantors and the Guaranteeing Subsidiaries have been done; and

WHEREAS, pursuant to Section 9.01(g) of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture without the consent of the Holders of the Notes.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, each of the Guaranteeing Subsidiaries covenants and agrees for the equal and ratable benefit of the Holders of the Notes as follows:

1. **CAPITALIZED TERMS.** Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.
2. **GUARANTEE, ETC.** Each of the Guaranteeing Subsidiaries hereby agrees that from and after the date hereof it shall be a Guarantor under the Indenture and be bound by the terms thereof applicable to Guarantors and shall be entitled to all of the rights and subject to all the obligations of a Guarantor thereunder.
3. **RATIFICATION OF INDENTURE; SUPPLEMENTAL INDENTURE PART OF INDENTURE.** The Indenture is in all respects ratified and confirmed and all the terms, conditions and provisions thereof shall remain in full force and effect. This Supplemental Indenture shall form a part of the Indenture for all purposes, and every holder of Notes heretofore or hereafter authenticated and delivered shall be bound hereby.
4. **EXECUTION AND DELIVERY.** Each of the Guaranteeing Subsidiaries agrees that the Guarantee granted by it pursuant to the terms hereof shall remain in full force and effect notwithstanding any failure to endorse on each Note a notation of such Guarantee.
5. **NO RECOURSE AGAINST OTHERS.** No past, present or future director, officer, employee, incorporator, stockholder or agent of any of the Guaranteeing Subsidiaries (or any successor entity) (other than the Company or the Existing Guarantors), as such, shall have any liability for any obligations of the Company, TD Group, the Guaranteeing Subsidiaries or any other Guarantor under the Notes, any Guarantee, the Indenture or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of the Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.

6. **NEW YORK LAW TO GOVERN.** THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE AND THE GUARANTEE GRANTED HEREUNDER WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.
7. **COUNTERPART ORIGINALS.** The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.
8. **EFFECT OF HEADINGS.** The Section headings have been inserted for convenience of reference only, are not to be considered part of this Supplemental Indenture and shall in no way modify or restrict any of the terms or provisions hereof.
9. **THE TRUSTEE.** The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Guaranteeing Subsidiaries, the Existing Guarantors and the Company.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed as of the date hereof.
NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

TRANSDIGM INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President,
Chief Financial Officer and Treasurer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRUCE AEROSPACE, INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace Investments, Inc., as its sole member
HARTWELL CORPORATION
JOHNSON LIVERPOOL LLC
By: Young & Franklin Inc., as its sole member
MARATHONNORCO AEROSPACE INC.
MCKECHNIE AEROSPACE INVESTMENTS, INC.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
TACTAIR FLUID CONTROLS, INC.
TEXAS ROTRONICS, INC.
YOUNG & FRANKLIN INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

[Signature page to the Eighth Supplemental Indenture – 2024 Notes]

AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AVIATION TECHNOLOGIES, INC.
BRIDPORT-AIR CARRIER, INC.
BRIDPORT HOLDINGS, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE US LLC
By: McKechnie Aerospace DE, Inc., as its sole member
TRANSICOIL LLC
By: Aviation Technologies, Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President and Chief Executive Officer

AEROSONIC LLC
AVIONIC INSTRUMENTS LLC
BREEZE-EASTERN LLC
CDA INTERCORP LLC
CEF INDUSTRIES, LLC
CHAMPION AEROSPACE LLC
HARCO LLC
INTERIORS IN FLIGHT LLC
SCHNELLER LLC
SCHROTH SAFETY PRODUCTS LLC
TELAIR US LLC
TELAIR INTERNATIONAL LLC

By: Telair US LLC, as its sole member
WHIPPANY ACTUATION SYSTEMS, LLC
Each By: TransDigm Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AVIONICS SPECIALTIES, INC.
ILC HOLDINGS, INC.
ILC INDUSTRIES, LLC
By: ILC Holdings, Inc., as its sole member
MCKECHNIE AEROSPACE HOLDINGS, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President

BRIDPORT ERIE AVIATION, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Vice President and Treasurer

[Signature page to the Eighth Supplemental Indenture – 2024 Notes]

AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.

By: /s/ Halle F. Terrion
Name: Halle F. Terrion
Title: Secretary

[Signature page to the Eighth Supplemental Indenture – 2024 Notes]

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS TRUSTEE

By: /s/ Lawrence M. Kusch

Name: Lawrence M. Kusch

Title: Vice President

[Signature page to the Eighth Supplemental Indenture – 2024 Notes]

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED HEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

EIGHTH SUPPLEMENTAL INDENTURE

Dated as of May 9, 2017

to

Indenture

Dated as of June 4, 2014

by and among

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED THEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

6.000% Senior Subordinated Notes due 2022
of TransDigm Inc.

This **EIGHTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of May 9, 2017, is entered into by and among North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (together with North Hills, the “**Guaranteeing Subsidiaries**”), TransDigm Inc., a Delaware corporation (the “**Company**”), TransDigm Group Incorporated, a Delaware corporation (“**TD Group**”), Adams Rite Aerospace, Inc., a California corporation (“**Adams Rite**”), MarathonNorco Aerospace, Inc., a Delaware corporation (“**Marathon**”), Champion Aerospace LLC, a Delaware limited liability company (“**Champion**”), Avionic Instruments LLC, a Delaware limited liability company (“**Avionic**”), Skurka Aerospace Inc., a Delaware corporation (“**Skurka**”), CDA InterCorp LLC, a Florida limited liability company (“**CDA**”), Aviation Technologies, Inc., a Delaware corporation (“**ATI**”), AvtechTyeec, Inc., a Washington corporation (“**Avtech**”), Transicoil LLC, a Delaware limited liability company (“**Transicoil**”), AeroControlex Group, Inc., a Delaware corporation (“**AeroControlex**”), Bruce Aerospace Inc., a Delaware corporation (“**Bruce Aerospace**”), CEF Industries, LLC, a Delaware limited liability company (“**CEF**”), Acme Aerospace, Inc., a Delaware corporation (“**Acme**”), Dukes Aerospace, Inc., a Delaware corporation (“**Dukes**”), Semco Instruments, Inc., a Delaware corporation, (“**Semco**”), Hartwell Corporation, a California corporation (“**Hartwell**”), McKechnie Aerospace DE, Inc., a Delaware corporation (“**McKechnie Aerospace DE**”), McKechnie Aerospace Holdings, Inc., a Delaware corporation (“**McKechnie Aerospace Holdings**”), McKechnie Aerospace Investments, Inc., a Delaware corporation (“**McKechnie Aerospace Investments**”), McKechnie Aerospace US LLC, a Delaware limited liability company (“**McKechnie Aerospace US**”), Texas Rotronics, Inc., a Texas corporation (“**Rotronics**”), Electromech Technologies LLC (formerly Western Sky Industries, LLC), a Delaware limited liability company (“**Electromech**”), Schneller LLC, a Delaware limited liability company (“**Schneller**”), HARCO LLC (formerly Harco Laboratories, Incorporated), a Connecticut limited liability company (“**HARCO**”), AmSafe Global Holdings, Inc., a Delaware corporation (“**AmSafe Global**”), Bridport Holdings, Inc., a Delaware corporation (“**Bridport Holdings**”), AmSafe, Inc., a Delaware corporation (“**AmSafe Inc.**”), Shield Restraint Systems, Inc. (formerly AmSafe Commercial Products, Inc.), a Delaware corporation (“**Shield**”), Bridport-Air Carrier, Inc., a Washington corporation (“**Bridport-Air**”), Bridport Erie Aviation, Inc., a Delaware corporation (“**Bridport Erie**”), Arkwin Industries, Inc., a New York corporation (“**Arkwin**”), Whippany Actuation Systems, LLC, a Delaware limited liability company (“**Whippany**”), Aerosonic LLC, a Delaware limited liability company (“**Aerosonic**”), Avionics Specialties, Inc., a Virginia corporation (“**Avionics Specialties**”), Airborne Global, Inc., a Delaware corporation (“**Airborne Global**”), Airborne Holdings, Inc., a Delaware Corporation (“**Airborne Holdings**”), Airborne Acquisition, Inc., a Delaware corporation (“**Airborne Acquisitions**”), Airborne Systems NA Inc., a Delaware corporation (“**Airborne Systems NA**”), Airborne Systems North America Inc., a Delaware corporation (“**Airborne Systems North America**”), Airborne Systems North America of CA Inc., a Delaware corporation (“**Airborne Systems North America CA**”), Airborne Systems North America of NJ Inc., a New Jersey corporation (“**Airborne Systems North America NJ**”), Telair US LLC, a Delaware limited liability company (“**Telair US**”), Telair International LLC, a Delaware limited liability company (“**Telair International**”), Pexco Aerospace, Inc., a Delaware corporation (“**Pexco Aerospace**”), PneuDraulics, Inc., a California corporation (“**PneuDraulics**”), Breeze-Eastern LLC, a Delaware limited liability company (“**Breeze-Eastern**”), ILC Holdings, Inc., a Delaware corporation (“**ILC Holdings**”), ILC Industries, LLC, a Delaware limited liability company (“**ILC Industries**”), Data Device Corporation, a Delaware corporation (“**DDC**”), Beta Transformer Technology Corporation, a New York corporation (“**Beta Corporation**”), Beta Transformer Technology LLC, a Delaware limited liability company (“**Beta LLC**”), Young & Franklin Inc., a New York corporation (“**Young & Franklin**”), Tactair Fluid Controls, Inc., a New York corporation (“**Tactair**”), Johnson Liverpool LLC, a Delaware limited liability company (“**Johnson Liverpool**”), SCHROTH Safety Products LLC, a Delaware limited liability company (“**SCHROTH**”) and Interiors In Flight LLC, a Delaware limited liability company (collectively with TD Group, Adams Rite, Marathon, Champion, Avionic, Skurka, CDA, ATI, Avtech, Transicoil, AeroControlex, Bruce Aerospace, CEF, Acme, Dukes, Semco, Hartwell, McKechnie Aerospace DE, McKechnie Aerospace Holdings, McKechnie Aerospace Investments, McKechnie Aerospace US, Rotronics, Electromech, Schneller, HARCO, AmSafe Global, Bridport Holdings, AmSafe Inc., Shield, Bridport-Air, Bridport Erie, Arkwin, Whippany, Aerosonic, Avionics Specialties, Airborne Global, Airborne Holdings, Airborne Acquisitions, Airborne Systems NA, Airborne Systems North America, Airborne Systems North America CA, Airborne Systems North America NJ, Telair US, Telair International, Pexco Aerospace, PneuDraulics, Breeze-Eastern, ILC Holdings, ILC Industries, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool and SCHROTH the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below. Capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in the Indenture.

WITNESSETH:

WHEREAS, the Company and the Existing Guarantors have heretofore executed and delivered to the Trustee an indenture, dated as of June 4, 2014 (as supplemented by the First Supplemental Indenture thereto, dated as of April 9, 2015, the Second Supplemental Indenture thereto, dated as of June 12, 2015, the Third Supplemental Indenture thereto, dated as of August 28, 2015, the Fourth Supplemental Indenture thereto, dated as of April 1, 2016, the Fifth Supplemental Indenture thereto, dated as of July 8, 2016, the Sixth Supplemental Indenture thereto, dated as of October 28, 2016, and the Seventh Supplemental Indenture thereto, dated as of March 31, 2017, the "**Indenture**"), providing for the issuance by the Company of 6.000% Senior Subordinated Notes due 2022 (the "**Notes**") and the guarantees thereof by each of the Existing Guarantors;

WHEREAS, the Indenture provides that under certain circumstances described therein, newly created or acquired Domestic Restricted Subsidiaries shall execute and deliver to the Trustee a supplemental indenture to the Indenture providing for a senior subordinated guarantee of payment of the Notes by such Domestic Restricted Subsidiary (the "**Guarantee**");

WHEREAS, all things necessary to make this Supplemental Indenture the legal, valid and binding obligation of the Company, the Existing Guarantors and the Guaranteeing Subsidiaries have been done; and

WHEREAS, pursuant to Section 9.01(g) of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture without the consent of the Holders of the Notes.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, each of the Guaranteeing Subsidiaries covenants and agrees for the equal and ratable benefit of the Holders of the Notes as follows:

1. **CAPITALIZED TERMS.** Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.
2. **GUARANTEE, ETC.** Each of the Guaranteeing Subsidiaries hereby agrees that from and after the date hereof it shall be a Guarantor under the Indenture and be bound by the terms thereof applicable to Guarantors and shall be entitled to all of the rights and subject to all the obligations of a Guarantor thereunder.
3. **RATIFICATION OF INDENTURE; SUPPLEMENTAL INDENTURE PART OF INDENTURE.** The Indenture is in all respects ratified and confirmed and all the terms, conditions and provisions thereof shall remain in full force and effect. This Supplemental Indenture shall form a part of the Indenture for all purposes, and every holder of Notes heretofore or hereafter authenticated and delivered shall be bound hereby.
4. **EXECUTION AND DELIVERY.** Each of the Guaranteeing Subsidiaries agrees that the Guarantee granted by it pursuant to the terms hereof shall remain in full force and effect notwithstanding any failure to endorse on each Note a notation of such Guarantee.
5. **NO RECOURSE AGAINST OTHERS.** No past, present or future director, officer, employee, incorporator, stockholder or agent of any of the Guaranteeing Subsidiaries (or any successor entity) (other than the Company or the Existing Guarantors), as such, shall have any liability for any obligations of the Company, TD Group, the Guaranteeing Subsidiaries or any other Guarantor under the Notes, any Guarantee, the Indenture or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of the Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.

6. **NEW YORK LAW TO GOVERN.** THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE AND THE GUARANTEE GRANTED HEREUNDER WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.
7. **COUNTERPART ORIGINALS.** The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.
8. **EFFECT OF HEADINGS.** The Section headings have been inserted for convenience of reference only, are not to be considered part of this Supplemental Indenture and shall in no way modify or restrict any of the terms or provisions hereof.
9. **THE TRUSTEE.** The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Guaranteeing Subsidiaries, the Existing Guarantors and the Company.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed as of the date hereof.
NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

TRANSDIGM INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President,
Chief Financial Officer and Treasurer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRUCE AEROSPACE, INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace Investments, Inc., as its sole member
HARTWELL CORPORATION
JOHNSON LIVERPOOL LLC
By: Young & Franklin Inc., as its sole member
MARATHONNORCO AEROSPACE INC.
MCKECHNIE AEROSPACE INVESTMENTS, INC.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
TACTAIR FLUID CONTROLS, INC.
TEXAS ROTRONICS, INC.
YOUNG & FRANKLIN INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

[Signature page to the Eighth Supplemental Indenture – 2022 Notes]

AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AVIATION TECHNOLOGIES, INC.
BRIDPORT-AIR CARRIER, INC.
BRIDPORT HOLDINGS, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE US LLC
By: McKechnie Aerospace DE, Inc., as its sole member
TRANSICOIL LLC
By: Aviation Technologies, Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President and Chief Executive Officer

AEROSONIC LLC
AVIONIC INSTRUMENTS LLC
BREEZE-EASTERN LLC
CDA INTERCORP LLC
CEF INDUSTRIES, LLC
CHAMPION AEROSPACE LLC
HARCO LLC
INTERIORS IN FLIGHT LLC
SCHNELLER LLC
SCHROTH SAFETY PRODUCTS LLC
TELAIR US LLC
TELAIR INTERNATIONAL LLC

By: Telair US LLC, as its sole member
WHIPPANY ACTUATION SYSTEMS, LLC
Each By: TransDigm Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AVIONICS SPECIALTIES, INC.
ILC HOLDINGS, INC.
ILC INDUSTRIES, LLC
By: ILC Holdings, Inc., as its sole member
MCKECHNIE AEROSPACE HOLDINGS, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President

BRIDPORT ERIE AVIATION, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Vice President and Treasurer

[Signature page to the Eighth Supplemental Indenture – 2022 Notes]

AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.

By: /s/ Halle F. Terrion
Name: Halle F. Terrion
Title: Secretary

[Signature page to the Eighth Supplemental Indenture – 2022 Notes]

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS TRUSTEE

By: /s/ Lawrence M. Kusch
Name: Lawrence M. Kusch
Title: Vice President

[Signature page to the Eighth Supplemental Indenture – 2022 Notes]

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED HEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

SEVENTH SUPPLEMENTAL INDENTURE

Dated as of May 9, 2017

to

Indenture

Dated as of May 14, 2015

by and among

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED THEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

6.500% Senior Subordinated Notes due 2025
of TransDigm Inc.

This **SEVENTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of May 9, 2017, is entered into by and among North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (together with North Hills, the “**Guaranteeing Subsidiaries**”), TransDigm Inc., a Delaware corporation (the “**Company**”), TransDigm Group Incorporated, a Delaware corporation (“**TD Group**”), Adams Rite Aerospace, Inc., a California corporation (“**Adams Rite**”), MarathonNorco Aerospace, Inc., a Delaware corporation (“**Marathon**”), Champion Aerospace LLC, a Delaware limited liability company (“**Champion**”), Avionic Instruments LLC, a Delaware limited liability company (“**Avionic**”), Skurka Aerospace Inc., a Delaware corporation (“**Skurka**”), CDA InterCorp LLC, a Florida limited liability company (“**CDA**”), Aviation Technologies, Inc., a Delaware corporation (“**ATI**”), AvtechTyeec, Inc., a Washington corporation (“**Avtech**”), Transicoil LLC, a Delaware limited liability company (“**Transicoil**”), AeroControlex Group, Inc., a Delaware corporation (“**AeroControlex**”), Bruce Aerospace Inc., a Delaware corporation (“**Bruce Aerospace**”), CEF Industries, LLC, a Delaware limited liability company (“**CEF**”), Acme Aerospace, Inc., a Delaware corporation (“**Acme**”), Dukes Aerospace, Inc., a Delaware corporation (“**Dukes**”), Semco Instruments, Inc., a Delaware corporation, (“**Semco**”), Hartwell Corporation, a California corporation (“**Hartwell**”), McKechnie Aerospace DE, Inc., a Delaware corporation (“**McKechnie Aerospace DE**”), McKechnie Aerospace Holdings, Inc., a Delaware corporation (“**McKechnie Aerospace Holdings**”), McKechnie Aerospace Investments, Inc., a Delaware corporation (“**McKechnie Aerospace Investments**”), McKechnie Aerospace US LLC, a Delaware limited liability company (“**McKechnie Aerospace US**”), Texas Rotronics, Inc., a Texas corporation (“**Rotronics**”), Electromech Technologies LLC (formerly Western Sky Industries, LLC), a Delaware limited liability company (“**Electromech**”), Schneller LLC, a Delaware limited liability company (“**Schneller**”), HARCO LLC (formerly Harco Laboratories, Incorporated), a Connecticut limited liability company (“**HARCO**”), AmSafe Global Holdings, Inc., a Delaware corporation (“**AmSafe Global**”), Bridport Holdings, Inc., a Delaware corporation (“**Bridport Holdings**”), AmSafe, Inc., a Delaware corporation (“**AmSafe Inc.**”), Shield Restraint Systems, Inc. (formerly AmSafe Commercial Products, Inc.), a Delaware corporation (“**Shield**”), Bridport-Air Carrier, Inc., a Washington corporation (“**Bridport-Air**”), Bridport Erie Aviation, Inc., a Delaware corporation (“**Bridport Erie**”), Arkwin Industries, Inc., a New York corporation (“**Arkwin**”), Whippany Actuation Systems, LLC, a Delaware limited liability company (“**Whippany**”), Aerosonic LLC, a Delaware limited liability company (“**Aerosonic**”), Avionics Specialties, Inc., a Virginia corporation (“**Avionics Specialties**”), Airborne Global, Inc., a Delaware corporation (“**Airborne Global**”), Airborne Holdings, Inc., a Delaware Corporation (“**Airborne Holdings**”), Airborne Acquisition, Inc., a Delaware corporation (“**Airborne Acquisitions**”), Airborne Systems NA Inc., a Delaware corporation (“**Airborne Systems NA**”), Airborne Systems North America Inc., a Delaware corporation (“**Airborne Systems North America**”), Airborne Systems North America of CA Inc., a Delaware corporation (“**Airborne Systems North America CA**”), Airborne Systems North America of NJ Inc., a New Jersey corporation (“**Airborne Systems North America NJ**”), Telair US LLC, a Delaware limited liability company (“**Telair US**”), Telair International LLC, a Delaware limited liability company (“**Telair International**”), Pexco Aerospace, Inc., a Delaware corporation (“**Pexco Aerospace**”), PneuDrualics, Inc., a California corporation (“**PneuDrualics**”), Breeze-Eastern LLC, a Delaware limited liability company (“**Breeze-Eastern**”), ILC Holdings, Inc., a Delaware corporation (“**ILC Holdings**”), ILC Industries, LLC, a Delaware limited liability company (“**ILC Industries**”), Data Device Corporation, a Delaware corporation (“**DDC**”), Beta Transformer Technology Corporation, a New York corporation (“**Beta Corporation**”), Beta Transformer Technology LLC, a Delaware limited liability company (“**Beta LLC**”), Young & Franklin Inc., a New York corporation (“**Young & Franklin**”), Tactair Fluid Controls, Inc., a New York corporation (“**Tactair**”), Johnson Liverpool LLC, a Delaware limited liability company (“**Johnson Liverpool**”), SCHROTH Safety Products LLC, a Delaware limited liability company (“**SCHROTH**”) and Interiors In Flight LLC, a Delaware limited liability company (collectively with TD Group, Adams Rite, Marathon, Champion, Avionic, Skurka, CDA, ATI, Avtech, Transicoil, AeroControlex, Bruce Aerospace, CEF, Acme, Dukes, Semco, Hartwell, McKechnie Aerospace DE, McKechnie Aerospace Holdings, McKechnie Aerospace Investments, McKechnie Aerospace US, Rotronics, Electromech, Schneller, HARCO, AmSafe Global, Bridport Holdings, AmSafe Inc., Shield, Bridport-Air, Bridport Erie, Arkwin, Whippany, Aerosonic, Avionics Specialties, Airborne Global, Airborne Holdings, Airborne Acquisitions, Airborne Systems NA, Airborne Systems North America, Airborne Systems North America CA, Airborne Systems North America NJ, Telair US, Telair International, Pexco Aerospace, PneuDrualics, Breeze-Eastern, ILC Holdings, ILC Industries, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool and SCHROTH the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below. Capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in the Indenture.

WITNESSETH:

WHEREAS, the Company and the Existing Guarantors have heretofore executed and delivered to the Trustee an indenture, dated as of May 14, 2015 (as supplemented by the First Supplemental Indenture thereto, dated as of June 12, 2015, the Second Supplemental Indenture thereto, dated as of August 28, 2015, the Third Supplemental Indenture thereto, dated as of April 1, 2016, the Fourth Supplemental Indenture thereto, dated as of July 8, 2016, the Fifth Supplemental Indenture thereto, dated as of October 28, 2016, as further supplemented by the Officers' Certificate, dated as of March 1, 2017, and the Sixth Supplemental Indenture, dated as of March 31, 2017, the "**Indenture**"), providing for the issuance by the Company of 6.500% Senior Subordinated Notes due 2025 (the "**Notes**") and the guarantees thereof by each of the Existing Guarantors;

WHEREAS, the Indenture provides that under certain circumstances described therein, newly created or acquired Domestic Restricted Subsidiaries shall execute and deliver to the Trustee a supplemental indenture to the Indenture providing for a senior subordinated guarantee of payment of the Notes by such Domestic Restricted Subsidiary (the "**Guarantee**");

WHEREAS, all things necessary to make this Supplemental Indenture the legal, valid and binding obligation of the Company, the Existing Guarantors and the Guaranteeing Subsidiaries have been done; and

WHEREAS, pursuant to Section 9.01(g) of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture without the consent of the Holders of the Notes.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, each of the Guaranteeing Subsidiaries covenants and agrees for the equal and ratable benefit of the Holders of the Notes as follows:

1. **CAPITALIZED TERMS.** Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.
2. **GUARANTEE, ETC.** Each of the Guaranteeing Subsidiaries hereby agrees that from and after the date hereof it shall be a Guarantor under the Indenture and be bound by the terms thereof applicable to Guarantors and shall be entitled to all of the rights and subject to all the obligations of a Guarantor thereunder.
3. **RATIFICATION OF INDENTURE; SUPPLEMENTAL INDENTURE PART OF INDENTURE.** The Indenture is in all respects ratified and confirmed and all the terms, conditions and provisions thereof shall remain in full force and effect. This Supplemental Indenture shall form a part of the Indenture for all purposes, and every holder of Notes heretofore or hereafter authenticated and delivered shall be bound hereby.
4. **EXECUTION AND DELIVERY.** Each of the Guaranteeing Subsidiaries agrees that the Guarantee granted by it pursuant to the terms hereof shall remain in full force and effect notwithstanding any failure to endorse on each Note a notation of such Guarantee.
5. **NO RECOURSE AGAINST OTHERS.** No past, present or future director, officer, employee, incorporator, stockholder or agent of any of the Guaranteeing Subsidiaries (or any successor entity) (other than the Company or the Existing Guarantors), as such, shall have any liability for any obligations of the Company, TD Group, the Guaranteeing Subsidiaries or any other Guarantor under the Notes, any Guarantee, the Indenture or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of the Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.

6. **NEW YORK LAW TO GOVERN.** THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE AND THE GUARANTEE GRANTED HEREUNDER WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.
7. **COUNTERPART ORIGINALS.** The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.
8. **EFFECT OF HEADINGS.** The Section headings have been inserted for convenience of reference only, are not to be considered part of this Supplemental Indenture and shall in no way modify or restrict any of the terms or provisions hereof.
9. **THE TRUSTEE.** The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Guaranteeing Subsidiaries, the Existing Guarantors and the Company.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed as of the date hereof.
NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

TRANSDIGM INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President,
Chief Financial Officer and Treasurer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRUCE AEROSPACE, INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace Investments, Inc., as its sole member
HARTWELL CORPORATION
JOHNSON LIVERPOOL LLC
By: Young & Franklin Inc., as its sole member
MARATHONNORCO AEROSPACE INC.
MCKECHNIE AEROSPACE INVESTMENTS, INC.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
TACTAIR FLUID CONTROLS, INC.
TEXAS ROTRONICS, INC.
YOUNG & FRANKLIN INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

[Signature page to the Seventh Supplemental Indenture – 2025 Notes]

AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AVIATION TECHNOLOGIES, INC.
BRIDPORT-AIR CARRIER, INC.
BRIDPORT HOLDINGS, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE US LLC
By: McKechnie Aerospace DE, Inc., as its sole member
TRANSICOIL LLC
By: Aviation Technologies, Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President and Chief Executive Officer

AEROSONIC LLC
AVIONIC INSTRUMENTS LLC
BREEZE-EASTERN LLC
CDA INTERCORP LLC
CEF INDUSTRIES, LLC
CHAMPION AEROSPACE LLC
HARCO LLC
INTERIORS IN FLIGHT LLC
SCHNELLER LLC
SCHROTH SAFETY PRODUCTS LLC
TELAIR US LLC
TELAIR INTERNATIONAL LLC

By: Telair US LLC, as its sole member
WHIPPANY ACTUATION SYSTEMS, LLC
Each By: TransDigm Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AVIONICS SPECIALTIES, INC.
ILC HOLDINGS, INC.
ILC INDUSTRIES, LLC
By: ILC Holdings, Inc., as its sole member
MCKECHNIE AEROSPACE HOLDINGS, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President

BRIDPORT ERIE AVIATION, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Vice President and Treasurer

[Signature page to the Seventh Supplemental Indenture – 2025 Notes]

AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.

By: /s/ Halle F. Terrion
Name: Halle F. Terrion
Title: Secretary

[Signature page to the Seventh Supplemental Indenture – 2025 Notes]

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS TRUSTEE

By: /s/ Lawrence M. Kusch
Name: Lawrence M. Kusch
Title: Vice President

[Signature page to the Seventh Supplemental Indenture – 2025 Notes]

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED HEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

FOURTH SUPPLEMENTAL INDENTURE

Dated as of May 9, 2017

to

Indenture

Dated as of June 9, 2016

by and among

TRANSDIGM INC.,
TRANSDIGM GROUP INCORPORATED,
THE GUARANTORS NAMED THEREIN,
AND
THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.,
as Trustee

6.375% Senior Subordinated Notes due 2026
of TransDigm Inc.

This **FOURTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of May 9, 2017, is entered into by and among North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (together with North Hills, the “**Guaranteeing Subsidiaries**”), TransDigm Inc., a Delaware corporation (the “**Company**”), TransDigm Group Incorporated, a Delaware corporation (“**TD Group**”), Adams Rite Aerospace, Inc., a California corporation (“**Adams Rite**”), MarathonNorco Aerospace, Inc., a Delaware corporation (“**Marathon**”), Champion Aerospace LLC, a Delaware limited liability company (“**Champion**”), Avionic Instruments LLC, a Delaware limited liability company (“**Avionic**”), Skurka Aerospace Inc., a Delaware corporation (“**Skurka**”), CDA InterCorp LLC, a Florida limited liability company (“**CDA**”), Aviation Technologies, Inc., a Delaware corporation (“**ATI**”), AvtechTyeec, Inc., a Washington corporation (“**Avtech**”), Transicoil LLC, a Delaware limited liability company (“**Transicoil**”), AeroControlex Group, Inc., a Delaware corporation (“**AeroControlex**”), Bruce Aerospace Inc., a Delaware corporation (“**Bruce Aerospace**”), CEF Industries, LLC, a Delaware limited liability company (“**CEF**”), Acme Aerospace, Inc., a Delaware corporation (“**Acme**”), Dukes Aerospace, Inc., a Delaware corporation (“**Dukes**”), Semco Instruments, Inc., a Delaware corporation, (“**Semco**”), Hartwell Corporation, a California corporation (“**Hartwell**”), McKechnie Aerospace DE, Inc., a Delaware corporation (“**McKechnie Aerospace DE**”), McKechnie Aerospace Holdings, Inc., a Delaware corporation (“**McKechnie Aerospace Holdings**”), McKechnie Aerospace Investments, Inc., a Delaware corporation (“**McKechnie Aerospace Investments**”), McKechnie Aerospace US LLC, a Delaware limited liability company (“**McKechnie Aerospace US**”), Texas Rotronics, Inc., a Texas corporation (“**Rotronics**”), Electromech Technologies LLC (formerly Western Sky Industries, LLC), a Delaware limited liability company (“**Electromech**”), Schneller LLC, a Delaware limited liability company (“**Schneller**”), HARCO LLC (formerly Harco Laboratories, Incorporated), a Connecticut limited liability company (“**HARCO**”), AmSafe Global Holdings, Inc., a Delaware corporation (“**AmSafe Global**”), Bridport Holdings, Inc., a Delaware corporation (“**Bridport Holdings**”), AmSafe, Inc., a Delaware corporation (“**AmSafe Inc.**”), Shield Restraint Systems, Inc. (formerly AmSafe Commercial Products, Inc.), a Delaware corporation (“**Shield**”), Bridport-Air Carrier, Inc., a Washington corporation (“**Bridport-Air**”), Bridport Erie Aviation, Inc., a Delaware corporation (“**Bridport Erie**”), Arkwin Industries, Inc., a New York corporation (“**Arkwin**”), Whippany Actuation Systems, LLC, a Delaware limited liability company (“**Whippany**”), Aerosonic LLC, a Delaware limited liability company (“**Aerosonic**”), Avionics Specialties, Inc., a Virginia corporation (“**Avionics Specialties**”), Airborne Global, Inc., a Delaware corporation (“**Airborne Global**”), Airborne Holdings, Inc., a Delaware Corporation (“**Airborne Holdings**”), Airborne Acquisition, Inc., a Delaware corporation (“**Airborne Acquisitions**”), Airborne Systems NA Inc., a Delaware corporation (“**Airborne Systems NA**”), Airborne Systems North America Inc., a Delaware corporation (“**Airborne Systems North America**”), Airborne Systems North America of CA Inc., a Delaware corporation (“**Airborne Systems North America CA**”), Airborne Systems North America of NJ Inc., a New Jersey corporation (“**Airborne Systems North America NJ**”), Telair US LLC, a Delaware limited liability company (“**Telair US**”), Telair International LLC, a Delaware limited liability company (“**Telair International**”), Pexco Aerospace, Inc., a Delaware corporation (“**Pexco Aerospace**”), PneuDrualics, Inc., a California corporation (“**PneuDrualics**”), Breeze-Eastern LLC, a Delaware limited liability company (“**Breeze-Eastern**”), ILC Holdings, Inc., a Delaware corporation (“**ILC Holdings**”), ILC Industries, LLC, a Delaware limited liability company (“**ILC Industries**”), Data Device Corporation, a Delaware corporation (“**DDC**”), Beta Transformer Technology Corporation, a New York corporation (“**Beta Corporation**”), Beta Transformer Technology LLC, a Delaware limited liability company (“**Beta LLC**”), Young & Franklin Inc., a New York corporation (“**Young & Franklin**”), Tactair Fluid Controls, Inc., a New York corporation (“**Tactair**”), Johnson Liverpool LLC, a Delaware limited liability company (“**Johnson Liverpool**”), SCHROTH Safety Products LLC, a Delaware limited liability company (“**SCHROTH**”) and Interiors In Flight LLC, a Delaware limited liability company (collectively with TD Group, Adams Rite, Marathon, Champion, Avionic, Skurka, CDA, ATI, Avtech, Transicoil, AeroControlex, Bruce Aerospace, CEF, Acme, Dukes, Semco, Hartwell, McKechnie Aerospace DE, McKechnie Aerospace Holdings, McKechnie Aerospace Investments, McKechnie Aerospace US, Rotronics, Electromech, Schneller, HARCO, AmSafe Global, Bridport Holdings, AmSafe Inc., Shield, Bridport-Air, Bridport Erie, Arkwin, Whippany, Aerosonic, Avionics Specialties, Airborne Global, Airborne Holdings, Airborne Acquisitions, Airborne Systems NA, Airborne Systems North America, Airborne Systems North America CA, Airborne Systems North America NJ, Telair US, Telair International, Pexco Aerospace, PneuDrualics, Breeze-Eastern, ILC Holdings, ILC Industries, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool and SCHROTH the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below. Capitalized terms used herein and not otherwise defined shall have the meaning assigned to them in the Indenture.

WITNESSETH:

WHEREAS, the Company and the Existing Guarantors have heretofore executed and delivered to the Trustee an indenture, dated as of June 9, 2016 (as supplemented by the First Supplemental Indenture thereto, dated as of July 8, 2016, the Second Supplemental Indenture thereto, dated as of October 28, 2016, and the Third Supplemental Indenture thereto, dated as of March 31, 2017, the “*Indenture*”), providing for the issuance by the Company of 6.375% Senior Subordinated Notes due 2026 (the “*Notes*”) and the guarantees thereof by each of the Existing Guarantors;

WHEREAS, the Indenture provides that under certain circumstances described therein, newly created or acquired Domestic Restricted Subsidiaries shall execute and deliver to the Trustee a supplemental indenture to the Indenture providing for a senior subordinated guarantee of payment of the Notes by such Domestic Restricted Subsidiary (the “*Guarantee*”);

WHEREAS, all things necessary to make this Supplemental Indenture the legal, valid and binding obligation of the Company, the Existing Guarantors and the Guaranteeing Subsidiaries have been done; and

WHEREAS, pursuant to Section 9.01(g) of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture without the consent of the Holders of the Notes.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, each of the Guaranteeing Subsidiaries covenants and agrees for the equal and ratable benefit of the Holders of the Notes as follows:

1. **CAPITALIZED TERMS.** Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.
2. **GUARANTEE, ETC.** Each of the Guaranteeing Subsidiaries hereby agrees that from and after the date hereof it shall be a Guarantor under the Indenture and be bound by the terms thereof applicable to Guarantors and shall be entitled to all of the rights and subject to all the obligations of a Guarantor thereunder.
3. **RATIFICATION OF INDENTURE; SUPPLEMENTAL INDENTURE PART OF INDENTURE.** The Indenture is in all respects ratified and confirmed and all the terms, conditions and provisions thereof shall remain in full force and effect. This Supplemental Indenture shall form a part of the Indenture for all purposes, and every holder of Notes heretofore or hereafter authenticated and delivered shall be bound hereby.
4. **EXECUTION AND DELIVERY.** Each of the Guaranteeing Subsidiaries agrees that the Guarantee granted by it pursuant to the terms hereof shall remain in full force and effect notwithstanding any failure to endorse on each Note a notation of such Guarantee.
5. **NO RECOURSE AGAINST OTHERS.** No past, present or future director, officer, employee, incorporator, stockholder or agent of any of the Guaranteeing Subsidiaries (or any successor entity) (other than the Company or the Existing Guarantors), as such, shall have any liability for any obligations of the Company, TD Group, the Guaranteeing Subsidiaries or any other Guarantor under the Notes, any Guarantee, the Indenture or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of the Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.
6. **NEW YORK LAW TO GOVERN.** THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE AND THE GUARANTEE GRANTED HEREUNDER WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.

7. **COUNTERPART ORIGINALS.** The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.
8. **EFFECT OF HEADINGS.** The Section headings have been inserted for convenience of reference only, are not to be considered part of this Supplemental Indenture and shall in no way modify or restrict any of the terms or provisions hereof.
9. **THE TRUSTEE.** The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Guaranteeing Subsidiaries, the Existing Guarantors and the Company.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed as of the date hereof.
NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

TRANSDIGM INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President,
Chief Financial Officer and Treasurer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRUCE AEROSPACE, INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace Investments, Inc., as its sole member
HARTWELL CORPORATION
JOHNSON LIVERPOOL LLC
By: Young & Franklin Inc., as its sole member
MARATHONNORCO AEROSPACE INC.
MCKECHNIE AEROSPACE INVESTMENTS, INC.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
TACTAIR FLUID CONTROLS, INC.
TEXAS ROTRONICS, INC.
YOUNG & FRANKLIN INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Chief Executive Officer

[Signature page to the Fourth Supplemental Indenture – 2026 Notes]

AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AVIATION TECHNOLOGIES, INC.
BRIDPORT-AIR CARRIER, INC.
BRIDPORT HOLDINGS, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE US LLC
By: McKechnie Aerospace DE, Inc., as its sole member
TRANSICOIL LLC
By: Aviation Technologies, Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President and Chief Executive Officer

AEROSONIC LLC
AVIONIC INSTRUMENTS LLC
BREEZE-EASTERN LLC
CDA INTERCORP LLC
CEF INDUSTRIES, LLC
CHAMPION AEROSPACE LLC
HARCO LLC
INTERIORS IN FLIGHT LLC
SCHNELLER LLC
SCHROTH SAFETY PRODUCTS LLC
TELAIR US LLC
TELAIR INTERNATIONAL LLC

By: Telair US LLC, as its sole member
WHIPPANY ACTUATION SYSTEMS, LLC
Each By: TransDigm Inc., as its sole member

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Executive Vice President and
Chief Financial Officer

AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AVIONICS SPECIALTIES, INC.
ILC HOLDINGS, INC.
ILC INDUSTRIES, LLC
By: ILC Holdings, Inc., as its sole member
MCKECHNIE AEROSPACE HOLDINGS, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: President

BRIDPORT ERIE AVIATION, INC.

By: /s/ Terrance M. Paradie
Name: Terrance M. Paradie
Title: Vice President and Treasurer

[Signature page to the Fourth Supplemental Indenture – 2026 Notes]

AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.

By: /s/ Halle F. Terrion
Name: Halle F. Terrion
Title: Secretary

[Signature page to the Fourth Supplemental Indenture – 2026 Notes]

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A., AS TRUSTEE

By: /s/ Lawrence M. Kusch
Name: Lawrence M. Kusch
Title: Vice President

[Signature page to the Fourth Supplemental Indenture – 2026 Notes]

CERTIFICATION

I, W. Nicholas Howley, certify that:

1. I have reviewed this quarterly report on Form 10-Q of TransDigm Group Incorporated;
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 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 third fiscal quarter 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 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:
 - (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: August 8, 2017

/s/ W. Nicholas Howley

Name: W. Nicholas Howley

Title: Chairman of the Board of Directors and Chief
Executive Officer (Principal Executive Officer)

CERTIFICATION

I, Terrance M. Paradie, certify that:

1. I have reviewed this quarterly report on Form 10-Q of TransDigm Group Incorporated;
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 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 third fiscal quarter 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 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:
 - (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: August 8, 2017

/s/ Terrance M. Paradie

Name: Terrance M. Paradie

Title: Executive Vice President and Chief

Financial Officer (Principal Financial and Accounting Officer)

**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 on Form 10-Q of TransDigm Group Incorporated (the "Company") for the period ended July 1, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, W. Nicholas Howley, Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer), certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities and Exchange Act of 1934; and
2. The information contained in the Report fairly presents in all material respects, the financial condition of the Company as of the dates indicated and results of operations of the Company for the periods indicated.

Date: August 8, 2017

/s/ W. Nicholas Howley

Name: W. Nicholas Howley

Title: Chairman of the Board of Directors and Chief
Executive Officer (Principal Executive Officer)

**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 on Form 10-Q of TransDigm Group Incorporated (the "Company") for the period ended July 1, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Terrance M. Paradie, Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer) certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities and Exchange Act of 1934; and
2. The information contained in the Report fairly presents in all material respects, the financial condition of the Company as of the dates indicated and results of operations of the Company for the periods indicated.

Date: August 8, 2017

/s/ Terrance M. Paradie

Name: Terrance M. Paradie

Title: Executive Vice President and Chief

Financial Officer (Principal Financial and Accounting Officer)