

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

FORM 10-K

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

For the fiscal year ended September 30, 2018

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

(Registrants' telephone number, including area code)

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

Common Stock
(Title)

New York Stock Exchange
(Name of exchange on which registered)

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

LARGE ACCELERATED FILER	<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 aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of March 31, 2018, based upon the last sale price of such voting and non-voting common stock on that date, was \$14,986,503,095.

The number of shares outstanding of TransDigm Group Incorporated's common stock, par value \$.01 per share, was 52,748,435 as of November 2, 2018.

Documents incorporated by reference: The registrant incorporates by reference in Part III hereof portions of its definitive Proxy Statement for its 2019 Annual Meeting of Stockholders.

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Special Note Regarding Forward-Looking Statements

This report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and 27A of the Securities Act of 1933, as amended. Discussions containing such forward-looking statements may be found in Items 1, 1A, 2, 3, 5, 7 and 7A hereof and elsewhere within this Report generally. In addition, when used in this Report, 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 (as defined below) 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. The more important of such risks and uncertainties are set forth under the caption “Risk Factors” and elsewhere 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. We do not undertake, and specifically decline, 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 Annual Report on Form 10-K 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 geopolitical or other worldwide events; 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 indebtedness; potential environmental liabilities; liabilities arising in connection with litigation; 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.

In this report, the term “TD Group” refers to TransDigm Group Incorporated, which holds all of the outstanding capital stock of TransDigm Inc. The terms “Company,” “TransDigm,” “we,” “us,” “our” and similar terms, unless the context otherwise requires, refer to TD Group, together with TransDigm Inc. and its wholly-owned and majority-owned subsidiaries for which it has a controlling interest. References to “fiscal year” mean the year ending or ended September 30. For example, “fiscal year 2018” or “fiscal 2018” means the period from October 1, 2017 to September 30, 2018.

PART I

ITEM 1. BUSINESS

The Company

TransDigm Inc. was formed in 1993 in connection with a leveraged buyout transaction. TD Group was formed in 2003 to facilitate a leveraged buyout of TransDigm Inc. The Company was owned by private equity funds until its initial public offering in 2006. TD Group’s common stock is publicly traded on the New York Stock Exchange, or NYSE, under the ticker symbol “TDG.”

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. We estimate that about 90% of our net sales for fiscal year 2018 were generated by proprietary products. In addition, for fiscal year 2018, we estimate that we generated about 80% of our net sales from products for which we are the sole source provider.

Most of our products generate significant aftermarket revenue. Once our parts are designed into and sold on a new aircraft, we generate net sales from aftermarket consumption over the life of that aircraft, which is generally estimated to be approximately 25 to 30 years. A typical platform can be produced for 20 to 30 years, giving us an estimated product life cycle in excess of 50 years. We estimate that approximately 60% of our net sales in fiscal year 2018 were generated from aftermarket sales, the vast majority of which come from the commercial and military aftermarkets. These aftermarket revenues have historically produced a higher gross margin and been more stable than sales to original equipment manufacturers, or OEMs.

Products

We primarily design, produce and supply highly engineered proprietary aerospace components (and certain systems/subsystems) with significant aftermarket content. We seek to develop highly customized products to solve specific needs for aircraft operators and manufacturers. We attempt to differentiate ourselves based on engineering, service and manufacturing capabilities. We typically choose not to compete for non-proprietary “build to print” business because it frequently offers lower

margins than proprietary products. We believe that our products have strong brand names within the industry and that we have a reputation for high quality, reliability and customer support.

Our business is well diversified due to the broad range of products that 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.

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 OEM 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, engineered connectors and elastomers, 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 OEM 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.

For financial information about our segments, see Note 16, "Segments," to the consolidated financial statements included herein, which is incorporated by reference.

Pending Acquisition of Esterline Technologies Corporation

On October 9, 2018, the Company entered into a merger agreement with Esterline Technologies Corporation ("Esterline"), under which the Company agreed to acquire Esterline. Under the terms of the merger agreement, the Company will purchase each share of Esterline common stock outstanding for \$122.50 per share in cash. TransDigm anticipates that the total transaction value will be approximately \$4 billion, representing the \$122.50 price paid per share for common stock outstanding plus existing debt. The Company expects the acquisition to be financed primarily through existing cash on hand and the incurrence of new term loans. In connection with the merger agreement, the Company entered into a commitment letter for a senior secured term facility up to \$3.7 billion. The actual amount and timing of the new senior secured term facility is subject to the closing of the Esterline acquisition and the cash on hand at that time. The Company currently expects that the merger will be completed in 2019, subject to approval of Esterline's shareholders, as well as other customary closing conditions, including the receipt of required regulatory approvals.

For further details on the acquisitions and divestiture that occurred during fiscal 2018, refer to Note 2, "Acquisitions and Divestitures," to the consolidated financial statements included herein, which is incorporated by reference.

Sales and Marketing

Consistent with our overall strategy, our sales and marketing organization is structured to continually develop technical solutions that meet customer needs. In particular, we attempt to focus on products and programs that will lead to high-margin, repeatable sales in the aftermarket.

We have structured our sales efforts along our major product offerings, assigning a business unit manager to certain products. Each business unit manager is expected to grow the sales and profitability of the products for which he or she is responsible and to achieve the targeted annual level of bookings, sales, new business and profitability for such products. The business unit managers are assisted by account managers and sales engineers who are responsible for covering major OEM and aftermarket accounts. Account managers and sales engineers are expected to be familiar with the personnel, organization and needs of specific customers to achieve total bookings and new business goals at each account and, together with the business unit managers, to determine when additional resources are required at customer locations. Most of our sales personnel are evaluated, in part, on their bookings and their ability to identify and obtain new business opportunities.

Though typically performed by employees, the account manager function may be performed by independent representatives depending on the specific customer, product and geographic location. We also use a number of distributors to provide logistical support as well as serve as a primary customer contact with certain smaller accounts. Our major distributors are Aviall, Inc. (a subsidiary of The Boeing Company) and Satair A/S (a subsidiary of Airbus S.A.S.).

Manufacturing and Engineering

We maintain approximately 80 manufacturing facilities. Most of our manufacturing facilities are comprised of manufacturing, distribution and engineering functions, and most facilities have certain administrative functions, including management, sales and finance. We continually strive to improve productivity and reduce costs, including rationalization of operations, developing improved control systems that allow for accurate accounting and reporting, investing in equipment, tooling, information systems and implementing broad-based employee training programs. Management believes that our manufacturing systems and equipment contribute to our ability to compete by permitting us to meet the rigorous tolerances and cost sensitive price structure of aircraft component customers.

We attempt to differentiate ourselves from our competitors by producing uniquely engineered products with high quality and timely delivery. Our engineering costs are recorded in cost of sales and in selling and administrative expenses and research and development costs are recorded in selling and administrative expenses in our consolidated statements of income. The aggregate of engineering expense and research and development expense represents approximately 8% of our operating units' aggregate costs, or approximately 4% of our consolidated net sales for fiscal year 2018. Our proprietary products, and particularly our new product initiatives, are designed by our engineers and are intended to serve the needs of the aircraft component industry. These proprietary designs must withstand the extraordinary conditions and stresses that will be endured by products during use and meet the rigorous demands of our customers' tolerance and quality requirements.

We use sophisticated equipment and procedures to comply with quality requirements, specifications and Federal Aviation Administration ("FAA") and OEM requirements. We perform a variety of testing procedures as required by our customers, such as testing under different temperature, humidity and altitude levels, flammability testing, shock and vibration testing and X-ray fluorescent measurement. These procedures, together with other customer approved techniques for document, process and quality control, are used throughout our manufacturing facilities. Refer to Note 3, "Summary of Significant Accounting Policies," to the consolidated financial statements included herein with respect to total costs of research and development, which is incorporated by reference.

Customers

We predominantly serve customers in the commercial, regional, business jet and general aviation aftermarket, which accounts for approximately 36% of total sales; the commercial aerospace OEM market, comprising large commercial transport manufacturers and regional and business jet manufacturers, which accounts for approximately 24% of total sales; and the defense market, which accounts for approximately 35% of total sales. Non-aerospace sales comprise approximately 5% of our total sales.

Our customers include: (1) distributors of aerospace components; (2) worldwide commercial airlines, including national and regional airlines; (3) large commercial transport and regional and business aircraft OEMs; (4) various armed forces of the United States and friendly foreign governments; (5) defense OEMs; (6) system suppliers; and (7) various other industrial customers. For the year ended September 30, 2018, Airbus S.A.S. (which includes Satair A/S, a distributor of commercial aftermarket parts to airlines throughout the world) accounted for approximately 11% of our net sales and The Boeing Company (which includes Aviall, Inc., also a distributor of commercial aftermarket parts to airlines throughout the world) accounted for approximately 10% of our net sales. Our top ten customers for fiscal year 2018 accounted for approximately 43% of our net sales. Products supplied to many of our customers are used on multiple platforms.

Active commercial production programs include the Boeing 737 (including the 737MAX), 747, 767, 777 and 787, the Airbus A220 (previously known as the Bombardier CSeries), A320 family (including neo), A330, A350 and A380, the Bombardier CRJs, Q400/Dash-8 aircraft, Challenger and Learjets, the Embraer regional and business jets, the Cessna Citation family, the Gulfstream aircraft family, the Dassault aircraft family, the HondaJet and the ATR42/72 turboprop. Military platforms include aircraft such as the Boeing AH-64 Apache, CH-47, C-17, F-15, F-18, KC46 Tanker, P-8 and V-22, the Airbus A400M, the Lockheed Martin C-130J, F-16 and F-35 Joint Strike Fighter, UH-60 Blackhawk helicopter, the Northrop Grumman E-2C Hawkeye, the General

Atomics Predator Drone and the Raytheon Patriot Missile. We have been awarded numerous contracts for the development of engineered products for production on the Airbus A330neo, the Boeing 777x, the Bombardier Global 7500/8000, the Embraer E2, the Mitsubishi Regional Jet and the Sikorsky S-97 and JMR helicopter.

The markets in which we sell our products are, to varying degrees, cyclical and have experienced upswings and downturns. The demand for our commercial aftermarket parts and services depends on, among other things, the breadth of our installed OEM base, revenue passenger miles (“RPMs”), the size and age of the worldwide aircraft fleet, the percentage of the worldwide fleet that is in warranty, and airline profitability. The demand for defense products is specifically dependent on government budget trends, military campaigns and political pressures.

Competition

The niche markets within the aerospace industry that we serve are relatively fragmented and we face several competitors for many of the products and services we provide. Due to the global nature of the commercial aircraft industry, competition in these categories comes from both U.S. and foreign companies. Competitors in our product offerings range in size from divisions of large public corporations to small privately-held entities with only one or two components in their entire product portfolios.

We compete on the basis of engineering, manufacturing and marketing high quality products, which we believe meet or exceed the performance and maintenance requirements of our customers, consistent and timely delivery, and superior customer service and support. The industry’s stringent regulatory, certification and technical requirements and the investments necessary in the development and certification of products may create disincentives for potential new competitors for certain products. If customers receive products that meet or exceed expectations and performance standards, we believe that they will have a reduced incentive to certify another supplier because of the cost and time of the technical design and testing certification process. In addition, we believe that the availability, dependability and safety of our products are reasons for our customers to continue long-term supplier relationships.

Government Contracts

Companies engaged in supplying defense-related equipment and services to U.S. Government agencies are subject to business risks specific to the defense industry. These risks include the ability of the U.S. Government to unilaterally: (1) suspend us from receiving new contracts; (2) terminate existing contracts; (3) reduce the value of existing contracts; (4) audit our contract-related costs and fees, including allocated indirect costs; (5) control and potentially prohibit the export of our products; and (6) seek repayment of contract related payments under certain circumstances. Violations of government procurement laws could result in civil or criminal penalties.

Governmental Regulation

The commercial aircraft component industry is highly regulated by the FAA in the United States and by the Joint Aviation Authorities in Europe and other agencies throughout the world, while the military aircraft component industry is governed by military quality specifications. We, and the components we manufacture, are required to be certified by one or more of these entities or agencies, and, in many cases, by individual OEMs, in order to engineer and service parts and components used in specific aircraft models.

We must also satisfy the requirements of our customers, including OEMs and airlines that are subject to FAA regulations, and provide these customers with products and services that comply with the government regulations applicable to commercial flight operations. In addition, the FAA requires that various maintenance routines be performed on aircraft components. We believe that we currently satisfy or exceed these maintenance standards in our repair and overhaul services. We also maintain several FAA approved repair stations.

In addition, our businesses are subject to many other laws and requirements typically applicable to manufacturers and exporters. Without limiting the foregoing, sales of many of our products that will be used on aircraft owned by foreign entities are subject to compliance with export control laws and the manufacture of our products and the operations of our businesses, including the disposal of hazardous wastes, are subject to compliance with applicable environmental laws.

Market Channels

The commercial aerospace industry, including the aftermarket and OEM market, is impacted by the health of the global economy and geo-political events around the world. The commercial aerospace industry has shown strength with increases in revenue passenger miles, or RPMs, since 2010, and positive growth continued through 2018 with increases in RPMs, as well as the growth in the large commercial OEM sector (aircraft with 100 or more seats) with order announcements by The Boeing Company and Airbus S.A.S. leading to planned increases in production. The 2019 leading indicators and industry consensus suggest a continuation of current trends in the commercial transport market sector supported by continued RPM growth and increases in production at the OEM level.

The defense aerospace market is dependent on government budget constraints, the timing of orders, political pressures and the extent of global conflicts. It is not necessarily affected by general economic conditions that affect the commercial aerospace industry.

Our presence in both the commercial aerospace and military sectors of the aerospace industry may mitigate the impact on our business of any specific industry risk. We service a diversified customer base in the commercial and military aerospace industry, and we provide components to a diverse installed base of aircraft, which mitigates our exposure to any individual airframe platform. At times, declines in sales in one channel have been offset by increased sales in another channel. However, due to differences between the profitability of our products sold to OEM and aftermarket customers, variation in product mix can cause variation in gross margin.

There are many short-term factors (including inventory corrections, unannounced changes in order patterns, strikes and mergers and acquisitions) that can cause short-term disruptions in our quarterly shipment patterns as compared to previous quarters and the same periods in prior years. As such, it can be difficult to determine longer-term trends in our business based on quarterly comparisons. To normalize for short-term fluctuations, we tend to look at our performance over several quarters or years of activity rather than discrete short-term periods.

There are also fluctuations in OEM and aftermarket ordering and delivery requests from quarter-to-quarter, as well as variations in product mix from quarter-to-quarter, that may cause positive or negative variations in gross profit margins since commercial aftermarket sales have historically produced a higher gross margin than sales to commercial OEMs. Again, in many instances these are timing events between quarters and must be balanced with macro aerospace industry indicators.

Commercial Aftermarket

The key growth factors in the commercial aftermarket include worldwide RPMs and the size and activity level of the worldwide fleet of aircraft and the percentage of the fleet that is in warranty.

Commercial OEM Market

The commercial transport market sector, the largest sector in the commercial OEM market, grew modestly during 2018. Our commercial transport OEM shipments and revenues generally run ahead of the Boeing and Airbus airframe delivery schedules. As a result and consistent with prior years, our fiscal 2019 shipments will be a function of, among other things, the estimated 2019 and 2020 commercial airframe production rates. We have been experiencing increased sales in the large commercial OEM sector (aircraft with 100 or more seats) driven by an increase in production by The Boeing Company and Airbus S.A.S tied to previous order announcements. Industry consensus indicates this production increase will continue in 2019 and 2020, though the growth may continue to moderate and begin to flatten.

Defense

Our military business fluctuates from year to year, and is dependent, to a degree, on government budget constraints, the timing of orders and the extent of global conflicts. For a variety of reasons, the military spending outlook is very uncertain. For planning purposes we assume that military related sales of our types of products to be flat in future years over the recent high levels.

Raw Materials

We require the use of various raw materials in our manufacturing processes. We also purchase a variety of manufactured component parts from various suppliers. At times, we concentrate our orders among a few suppliers in order to strengthen our supplier relationships. Most of our raw materials and component parts are generally available from multiple suppliers at competitive prices.

Intellectual Property

We have various trade secrets, proprietary information, trademarks, trade names, patents, copyrights and other intellectual property rights, which we believe, in the aggregate but not individually, are important to our business.

Backlog

As of September 30, 2018, the Company estimated its sales order backlog at \$2,026 million compared to an estimated sales order backlog of \$1,669 million as of September 30, 2017. The increase in estimated sales order backlog is primarily due to organic growth in the commercial and defense markets and growth from acquisitions. The majority of the purchase orders outstanding as of September 30, 2018 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 September 30, 2018 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, Japan, Malaysia, Mexico, Norway, Sri Lanka, Sweden and the United Kingdom. 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.

Environmental Matters

Our operations and facilities are subject to a number of federal, state, local and foreign environmental laws and regulations that govern, among other things, discharges of pollutants into the air and water, the generation, handling, storage and disposal of hazardous materials and wastes, the remediation of contamination and the health and safety of our employees. Environmental laws and regulations may require that the Company investigate and remediate the effects of the release or disposal of materials at sites associated with past and present operations. Certain facilities and third-party sites utilized by the Company have been identified as potentially responsible parties under the federal superfund laws and comparable state laws. The Company is currently involved in the investigation and remediation of a number of sites under applicable laws. For information regarding environmental accruals, see Note 14, "Environmental Liabilities," to the consolidated financial statements included herein, which is incorporated by reference.

Employees

As of September 30, 2018, we had approximately 10,100 full-time, part-time and temporary employees. Approximately 10% of our full-time and part-time employees were represented by labor unions. Collective bargaining agreements between us and these labor unions expire at various dates ranging from December 2018 to May 2022. We consider our relationship with our employees generally to be satisfactory.

Available Information

TD Group's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, including any amendments, will be made available free of charge on the Company's website, www.transdigm.com, as soon as reasonably practicable, following the filing of the reports with the Securities and Exchange Commission. In addition, the Company's website allows investors and other interested persons to sign up to automatically receive e-mail alerts when news releases and financial information is posted on the website. The SEC also maintains a website, www.sec.gov, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The content on any website referred to in this Annual Report on Form 10-K is not incorporated by reference into this Annual Report unless expressly noted.

ITEM 1A. RISK FACTORS

Set forth below are important risks and uncertainties that could negatively affect our business and financial condition and could cause our actual results to differ materially from those expressed in forward-looking statements contained in this report.

Our commercial business is sensitive to the number of flight hours that our customers' planes spend aloft, the size and age of the worldwide aircraft fleet and our customers' profitability. These items are, in turn, affected by general economic and geopolitical and other worldwide conditions.

Our commercial business is directly affected by, among other factors, changes in revenue passenger miles (RPMs), the size and age of the worldwide aircraft fleet, the percentage of the fleet that is out-of-warranty and changes in the profitability of the commercial airline industry. RPMs and airline profitability have historically been correlated with the general economic environment, although national and international events also play a key role. For example, in the past, the airline industry has been severely affected by the downturn in the global economy, higher fuel prices, the increased security concerns among airline customers following the events of September 11, 2001, the Severe Acute Respiratory Syndrome (SARS) epidemic, and the conflicts abroad, and could be impacted by future geopolitical or other worldwide events, such as war, terrorist acts, or a worldwide infectious disease outbreak. In addition, global market and economic conditions have been challenging with turbulence in the U.S. and international markets and economies and have prolonged declines in business and consumer spending. As a result of the substantial reduction in airline traffic resulting from these events, the airline industry incurred large losses and financial difficulties. Some carriers have also parked or retired a portion of their fleets and have reduced workforces and flights. During periods of reduced airline profitability, some airlines may delay purchases of spare parts, preferring instead to deplete existing inventories, and delay refurbishments and discretionary spending. If demand for spare parts decreases, there would be a decrease in demand for certain of our products. An adverse change in demand could impact our results of operations, collection of accounts receivable and our

expected cash flow generation from current and acquired businesses which may adversely impact our financial condition and access to capital markets.

Our sales to manufacturers of aircraft are cyclical, and a downturn in sales to these manufacturers may adversely affect us.

Our sales to manufacturers of large commercial aircraft, such as The Boeing Company, Airbus S.A.S, and related OEM suppliers, as well as manufacturers of business jets (which collectively accounted for approximately 24% of our net sales in fiscal year 2018) have historically experienced periodic downturns. In the past, these sales have been affected by airline profitability, which is impacted by, among other things, fuel and labor costs, price competition, interest rates, downturns in the global economy and national and international events. In addition, sales of our products to manufacturers of business jets are impacted by, among other things, downturns in the global economy. Downturns adversely affect our net sales, gross margin and net income.

We rely heavily on certain customers for much of our sales.

Our two largest customers for fiscal year 2018 were Airbus S.A.S. (which includes Satair A/S) and The Boeing Company (which includes Aviall, Inc.). Airbus S.A.S. accounted for approximately 11% of our net sales and The Boeing Company accounted for approximately 10% of our net sales in fiscal year 2018. Our top ten customers for fiscal year 2018 accounted for approximately 43% of our net sales. A material reduction in purchasing by one of our larger customers for any reason, including but not limited to economic downturn, decreased production, strike or resourcing, could have a material adverse effect on our net sales, gross margin and net income.

We generally do not have guaranteed future sales of our products. Further, when we enter into fixed price contracts with some of our customers, we take the risk for cost overruns.

As is customary in our business, we do not generally have long-term contracts with most of our aftermarket customers and, therefore, do not have guaranteed future sales. Although we have long-term contracts with many of our OEM customers, many of those customers may terminate the contracts on short notice and, in most cases, our customers have not committed to buy any minimum quantity of our products. In addition, in certain cases, we must anticipate the future volume of orders based upon the historic purchasing patterns of customers and upon our discussions with customers as to their anticipated future requirements, and this anticipated future volume of orders may not materialize.

We also have entered into multi-year, fixed-price contracts with some of our customers, pursuant to which we have agreed to perform the work for a fixed price and, accordingly, realize all the benefit or detriment resulting from any decreases or increases in the costs of making these products. Sometimes we accept a fixed-price contract for a product that we have not yet produced, and this increases the risk of cost overruns or delays in the completion of the design and manufacturing of the product. Most of our contracts do not permit us to recover increases in raw material prices, taxes or labor costs.

U.S. military spending is dependent upon the U.S. defense budget.

The military and defense market is significantly dependent upon government budget trends, particularly the U.S. Department of Defense (the "DOD") budget. In addition to normal business risks, our supply of products to the United States Government is subject to unique risks largely beyond our control. DOD budgets could be negatively impacted by several factors, including, but not limited to, a change in defense spending policy by the current presidential administration, the U.S. Government's budget deficits, spending priorities, the cost of sustaining the U.S. military presence internationally and possible political pressure to reduce U.S. Government military spending, each of which could cause the DOD budget to remain unchanged or to decline. A significant decline in U.S. military expenditures could result in a reduction in the amount of our products sold to the various agencies and buying organizations of the U.S. Government.

We intend to pursue acquisitions. Our business may be adversely affected if we cannot consummate acquisitions on satisfactory terms, or if we cannot effectively integrate acquired operations.

A significant portion of our growth has occurred through acquisitions. Any future growth through acquisitions will be partially dependent upon the continued availability of suitable acquisition candidates at favorable prices and upon advantageous terms and conditions. We intend to pursue acquisitions that we believe will present opportunities consistent with our overall business strategy. However, we may not be able to find suitable acquisition candidates to purchase or may be unable to acquire desired businesses or assets on economically acceptable terms or may be unable to receive necessary regulatory approvals or support. In addition, we may not be able to raise the capital necessary to fund future acquisitions. Because we may actively pursue a number of opportunities simultaneously, we may encounter unforeseen expenses, complications and delays, including regulatory complications or difficulties in employing sufficient staff and maintaining operational and management oversight.

We regularly engage in discussions with respect to potential acquisition and investment opportunities. If we consummate an acquisition, our capitalization and results of operations may change significantly. Future acquisitions could result in margin dilution and further likely result in the incurrence of additional debt and contingent liabilities and an increase in interest and

amortization expenses or periodic impairment charges related to goodwill and other intangible assets as well as significant charges relating to integration costs.

Acquisitions involve risks that the businesses acquired will not perform in accordance with expectations and that business judgments concerning the value, strengths and weaknesses of businesses acquired will prove incorrect. In addition, we may not be able to successfully integrate any business we acquire into our existing business. The successful integration of new businesses depends on our ability to manage these new businesses and cut excess costs. The successful integration of future acquisitions may also require substantial attention from our senior management and the management of the acquired business, which could decrease the time that they have to service, attract customers and develop new products and services or attend to other acquisition opportunities.

We are subject to many of the foregoing risks in connection with our recently announced agreement to acquire Esterline, and these risks may be exacerbated due to the scale and complexity of that acquisition as compared to our recent acquisitions. The acquisition is not expected to close until 2019, subject to approval of Esterline's shareholders, as well as other customary closing conditions, including the receipt of required regulatory approvals, so there can be no assurance that we will not encounter unforeseen expenses, complications and delays in the process or that we will be able to consummate the acquisition as contemplated or at all. If the acquisition is completed, it will require extensive integration efforts. These efforts could result in significant unforeseen costs and will require substantial attention from our senior management. If we are unable to successfully integrate Esterline or the acquisition otherwise does not perform to our expectations, our results of operations and financial condition may be adversely affected. It is also possible that the substantial management attention required by, and the indebtedness to be incurred in connection with, the transaction could cause us to forgo other acquisition opportunities, particularly if we encounter delays or unexpected costs or the acquisition otherwise does not perform to our expectations.

We are subject to certain unique business risks as a result of supplying equipment and services to the U.S. Government.

Companies engaged in supplying defense-related equipment and services to U.S. Government agencies are subject to business risks specific to the defense industry. These risks include the ability of the U.S. Government to unilaterally:

- suspend us from receiving new contracts based on alleged violations of procurement laws or regulations;
- terminate existing contracts;
- reduce the value of existing contracts; and
- audit our contract-related costs and fees, including allocated indirect costs.

Most of our U.S. Government contracts can be terminated by the U.S. Government for its convenience without significant notice. Termination for convenience provisions provide only for our recovery of costs incurred or committed, settlement expenses and profit on the work completed prior to termination.

On contracts for which the price is based on cost, the U.S. Government may review our costs and performance, as well as our accounting and general business practices. Based on the results of such audits, the U.S. Government may adjust our contract-related costs and fees, including allocated indirect costs. In addition, under U.S. Government purchasing regulations, some of our costs, including most financing costs, amortization of intangible assets, portions of research and development costs, and certain marketing expenses may not be subject to reimbursement.

Furthermore, even where the price is not based on cost, the U.S. Government may seek to review our costs to determine whether our pricing is "fair and reasonable." Our subsidiaries are periodically subject to a pricing review and in fact, government buying agencies that purchase some of our subsidiaries' products are currently the subject of a DOD Office of Inspector General audit with respect to prices paid for such products. Pricing reviews and government audits, including the one underway, could be costly and time consuming for our management and could distract from our ability to effectively manage the business. As a result of such a review, we could be subject to providing a refund to the U.S. Government or we could be asked to enter into an arrangement whereby our prices would be based on cost or the DOD could seek to pursue alternative sources of supply for our parts. Any of those occurrences could lead to a reduction in our revenue from, or the profitability of certain of our supply arrangements with, certain agencies and buying organizations of the U.S. Government.

Moreover, U.S. Government purchasing regulations contain a number of additional operational requirements, which do not apply to entities not engaged in government contracting. Failure to comply with such government contracting requirements could result in civil and criminal penalties that could have a material adverse effect on the Company's results of operations.

Our business may be adversely affected if we would lose our government or industry approvals or if more stringent government regulations are enacted or if industry oversight is increased.

The aerospace industry is highly regulated in the United States and in other countries. In order to sell our components, we and the components we manufacture must be certified by the FAA, the DOD and similar agencies in foreign countries and by individual manufacturers. If new and more stringent government regulations are adopted or if industry oversight increases, we

might incur significant expenses to comply with any new regulations or heightened industry oversight. In addition, if material authorizations or approvals were revoked or suspended, our business would be adversely affected.

In addition to the aviation approvals, we are at times required to obtain approval from U.S. Government agencies to export our products. Failure to obtain approval to export or determination by the U.S. Government that we failed to receive required approvals or licenses could eliminate or restrict our ability to sell our products outside the United States, and the penalties that could be imposed by the U.S. Government for failure to comply with these laws could be significant.

Our indebtedness could adversely affect our financial health and could harm our ability to react to changes to our business and prevent us from fulfilling our obligations under our indebtedness.

We have a significant amount of indebtedness. As of September 30, 2018, our total indebtedness, excluding approximately \$17.5 million of letters of credit outstanding, was approximately \$12.9 billion, which was 116.3% of our total book capitalization as a result of our prior year special dividends being funded, in part, with indebtedness and the addition of approximately \$1.1 billion in net new incremental borrowings during fiscal 2018.

Also, in connection with the merger agreement to acquire Esterline for approximately \$4 billion, the Company entered into a commitment letter for a senior secured term facility up to \$3.7 billion. The actual amount and timing of the new senior secured term facility is subject to the closing of the Esterline acquisition and the cash on hand at that time.

In addition, we may be able to incur substantial additional indebtedness in the future. For example, as of September 30, 2018, we had approximately \$582.5 million of unused commitments under our revolving loan facility. Although our senior secured credit facility and the indentures governing the various senior subordinated notes outstanding (the "Indentures") contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of significant qualifications and exceptions, and the indebtedness incurred in compliance with these qualifications and exceptions could be substantial. For example, if the usage of the revolving loan 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 senior secured credit facility or the Indentures.

An increase in our substantial indebtedness could also have other important consequences to investors. For example, it could:

- increase our vulnerability to general economic downturns and adverse competitive and industry conditions;
- increase the risk we are subjected to downgrade or put on a negative watch by the ratings agencies;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital requirements, capital expenditures, acquisitions, research and development efforts and other general corporate requirements;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- place us at a competitive disadvantage compared to competitors that have less debt; and
- limit, along with the financial and other restrictive covenants contained in the documents governing our indebtedness, among other things, our ability to borrow additional funds, make investments and incur liens.

In addition, all of our debt under the senior secured credit facility, which includes \$7.6 billion in term loans and a revolving loan facility of \$600 million, bears interest at variable rates. Accordingly, if interest rates increase, our debt service expense will also increase. Interest rate swap and cap agreements are used to manage interest rate risk associated with variable rate borrowings under our credit facilities. For information about our interest rate swap and cap agreements, see Note 20, "Derivatives and Hedging Instruments," in the notes to the consolidated financial statements included herein.

Our substantial level of indebtedness increases the possibility that we may be unable to generate cash sufficient to pay, when due, the principal of, interest on or other amounts due in respect of our indebtedness, including the Indentures. We cannot assure that our business will generate sufficient cash flow from operations or that future borrowings will be available to us under the senior secured credit facility or otherwise in amounts sufficient to enable us to service our indebtedness. If we cannot service our debt, we will have to take actions such as reducing or delaying capital investments, selling assets, restructuring or refinancing our debt or seeking additional equity capital.

To service our indebtedness, we will require a significant amount of cash. Our ability to generate cash depends on many factors beyond our control and any failure to meet our debt service obligations could harm our business, financial condition and results of operations.

Our ability to make payments on and to refinance our indebtedness, including the Indentures, amounts borrowed under the senior secured credit facility, amounts due under our Securitization Facility, and to fund our operations, will depend on our ability

to generate cash in the future, which, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

We cannot assure that our business will generate sufficient cash flow from operations, that currently anticipated cost savings and operating improvements will be realized on schedule, or at all, or that future borrowings will be available to us under the senior secured credit facility or otherwise in amounts sufficient to enable us to service our indebtedness, including the amounts borrowed under the senior secured credit facility, amounts borrowed under our Securitization Facility and the Indentures, or to fund our other liquidity needs. If we cannot service our debt, we will have to take actions such as reducing or delaying capital investments, selling assets, restructuring or refinancing our debt or seeking additional equity capital. We cannot assure that any of these remedies could, if necessary, be effected on commercially reasonable terms, or at all. Our ability to restructure or refinance our debt will depend on the condition of the capital markets and our financial condition at such time. Any refinancing of our debt could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. The terms of existing or future debt instruments, the Securitization Facility, the Indentures and the senior secured credit facility may restrict us from adopting any of these alternatives. In addition, any failure to make payments of interest and principal on our outstanding indebtedness on a timely basis would likely result in a reduction of our credit rating, which could harm our ability to incur additional indebtedness on acceptable terms and would otherwise adversely affect the Indentures.

The terms of the senior secured credit facility and Indentures may restrict our current and future operations, particularly our ability to respond to changes or to take certain actions.

Our senior secured credit facility and the Indentures contain a number of restrictive covenants that impose significant operating and financial restrictions on TD Group, TransDigm Inc. and its subsidiaries (in the case of the senior secured credit facility) and TransDigm Inc. and its subsidiaries (in the case of the Indentures) and may limit their ability to engage in acts that may be in our long-term best interests. The senior secured credit facility and Indentures include covenants restricting, among other things, the ability of TD Group, TransDigm Inc. and its subsidiaries (in the case of the senior secured credit facility) and TransDigm Inc. and its subsidiaries (in the case of the Indentures) to:

- incur or guarantee additional indebtedness or issue preferred stock;
- pay distributions on, redeem or repurchase our capital stock or redeem or repurchase our subordinated debt;
- make investments;
- sell assets;
- enter into agreements that restrict distributions or other payments from our restricted subsidiaries to us;
- incur or allow to exist liens;
- consolidate, merge or transfer all or substantially all of our assets;
- engage in transactions with affiliates;
- create unrestricted subsidiaries; and
- engage in certain business activities.

A breach of any of these covenants could result in a default under the senior secured credit facility or the Indentures. If any such default occurs, the lenders under the senior secured credit facility and the holders of the senior subordinated 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 senior secured credit facility 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 senior secured credit facility, the lenders under that facility 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 senior subordinated notes. If the debt under the senior secured credit facility or the senior subordinated notes were to be accelerated, we cannot assure that our assets would be sufficient to repay in full our debt.

We could incur substantial costs as a result of violations of or liabilities under environmental laws and regulations.

Our operations and facilities are subject to a number of federal, state, local and foreign environmental laws and regulations that govern, among other things, discharges of pollutants into the air and water, the generation, handling, storage and disposal of hazardous materials and wastes, the remediation of contamination and the health and safety of our employees. Environmental laws and regulations may require that the Company investigate and remediate the effects of the release or disposal of materials at sites associated with past and present operations. Certain facilities and third-party sites utilized by subsidiaries of the Company have been identified as potentially responsible parties under the federal superfund laws and comparable state laws. The Company is currently involved in the investigation and remediation of a number of sites under applicable laws.

Estimates of the Company's environmental liabilities are based on current facts, laws, regulations and technology. These estimates take into consideration the Company's prior experience and professional judgment of the Company's environmental advisors. Estimates of the Company's environmental liabilities are further subject to uncertainties regarding the nature and extent of site contamination, the range of remediation alternatives available, evolving remediation standards, imprecise engineering evaluations and cost estimates, the extent of corrective actions that may be required and the number and financial condition of other potentially responsible parties, as well as the extent of their responsibility for the remediation.

Accordingly, as investigation and remediation proceed, it is likely that adjustments in the Company's accruals will be necessary to reflect new information. The amounts of any such adjustments could have a material adverse effect on the Company's results of operations or cash flows in a given period. Based on currently available information, however, the Company does not believe that future environmental costs in excess of those accrued with respect to sites for which the Company has been identified as a potentially responsible party are likely to have a material adverse effect on the Company's financial condition.

We are dependent on our senior management team and highly trained employees and any work stoppage or difficulty hiring similar employees could adversely affect our business.

Because our products are complicated and highly engineered, we depend on an educated and trained workforce. There is substantial competition for skilled personnel in the aircraft component industry, and we could be adversely affected by a shortage of skilled employees. We may not be able to fill new positions or vacancies created by expansion or turnover or attract and retain qualified personnel.

Although we believe that our relations with our employees are satisfactory, we cannot assure that we will be able to negotiate a satisfactory renewal of collective bargaining agreements or that our employee relations will remain stable. Because we maintain a relatively small inventory of finished goods, any work stoppage could materially and adversely affect our ability to provide products to our customers.

In addition, our success depends in part on our ability to attract and motivate our senior management and key employees. Achieving this objective may be difficult due to a variety of factors, including fluctuations in economic and industry conditions, competitors' hiring practices, and the effectiveness of our compensation programs. Competition for qualified personnel can be intense. A loss of senior management and key personnel, or failure to attract qualified new talent could prevent us from capitalizing on business opportunities, and our operating results and/or market value could be adversely affected. The Board continually monitors this risk and we believe that the Board's succession plan, together with our straightforward strategy, clear value drivers, decentralized nature and the quality of managers running our operating units helps to mitigate this risk.

We may be subject to periodic litigation and regulatory proceedings, including Fair Labor Standards Act and state wage and hour class action lawsuits, which may adversely affect our business and financial performance.

From time to time, we are involved in lawsuits and regulatory actions brought or threatened against us in the ordinary course of business. These actions and proceedings may involve claims for, among other things, compensation for alleged personal injury, workers' compensation, employment discrimination, or breach of contract. In addition, we may be subject to class action lawsuits, including those involving allegations of violations of consumer product statutes or the Fair Labor Standards Act and state wage and hour laws. Due to the inherent uncertainties of litigation, we cannot accurately predict the ultimate outcome of any such actions or proceedings. The outcome of litigation, particularly class action lawsuits and regulatory actions, is difficult to assess or quantify, as plaintiffs may seek recovery of very large or indeterminate amounts in these types of lawsuits, and the magnitude of the potential loss may remain unknown for substantial periods of time. In addition, plaintiffs in many types of actions may seek punitive damages, civil penalties, consequential damages or other losses, or injunctive or declaratory relief. These proceedings could result in substantial cost and may require us to devote substantial resources to defend ourselves. The ultimate resolution of these matters through settlement, mediation, or court judgment could have a material impact on our financial condition, results of operations, and cash flows.

Our business is dependent on the availability of certain components and raw materials from suppliers.

Our business is affected by the price and availability of the raw materials and component parts that we use to manufacture our components. Our business, therefore, could be adversely impacted by factors affecting our suppliers (such as the destruction of our suppliers' facilities or their distribution infrastructure, a work stoppage or strike by our suppliers' employees or the failure of our suppliers to provide materials of the requisite quality), or by increased costs of such raw materials or components if we were unable to pass along such price increases to our customers. Because we maintain a relatively small inventory of raw materials and component parts, our business could be adversely affected if we were unable to obtain these raw materials and components from our suppliers in the quantities we require or on favorable terms. Although we believe in most cases that we could identify alternative suppliers, or alternative raw materials or component parts, the lengthy and expensive FAA and OEM certification processes associated with aerospace products could prevent efficient replacement of a supplier, raw material or component part.

Our operations depend on our manufacturing facilities, which are subject to physical and other risks that could disrupt production.

A number of our manufacturing facilities are located in the greater Los Angeles area, an area known for earthquakes, and are thus vulnerable to damage. In addition, a number of our manufacturing facilities are located along the Eastern seaboard area susceptible to hurricanes. We are also vulnerable to damage from other types of disasters, including power loss, fire, explosions, floods, communications failures, terrorist attacks and similar events. Disruptions could also occur due to cyber-attacks, computer or equipment malfunction (accidental or intentional), operator error or process failures. Any disruption of our ability to operate our business could result in a material decrease in our revenues or significant additional costs to replace, repair or insure our assets, which could have a material adverse impact on our financial condition and results of operations.

Operations and sales outside of the United States may be subject to additional risks.

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. Furthermore, the Company is subject to laws and regulations, such as the Foreign Corrupt Practices Act, UK Bribery Act and similar local anti-bribery laws, which generally prohibit companies and their employees, agents and contractors from making improper payments for the purpose of obtaining or retaining business. Failure to comply with these laws could subject the Company to civil and criminal penalties that could materially adversely affect the Company's results of operations.

We face significant competition.

We operate in a highly competitive global industry and compete against a number of companies. Competitors in our product lines are both U.S. and foreign companies and range in size from divisions of large public corporations to small privately held entities. We believe that our ability to compete depends on high product performance, consistent high quality, short lead-time and timely delivery, competitive pricing, superior customer service and support and continued certification under customer quality requirements and assurance programs. We may have to adjust the prices of some of our products to stay competitive.

We could be adversely affected if one of our components causes an aircraft to crash.

Our operations expose us to potential liabilities for personal injury or death as a result of the failure of an aircraft component that we have designed, manufactured or serviced. While we maintain liability insurance to protect us from future product liability claims, in the event of product liability claims our insurers may attempt to deny coverage or any coverage we have may not be adequate. We also may not be able to maintain insurance coverage in the future at an acceptable cost. Any liability not covered by insurance or for which third party indemnification is not available could result in significant liability to us.

In addition, a crash caused by one of our components could damage our reputation for quality products. We believe our customers consider safety and reliability as key criteria in selecting a provider of aircraft components. If a crash were to be caused by one of our components, or if we were to otherwise fail to maintain a satisfactory record of safety and reliability, our ability to retain and attract customers may be materially adversely affected.

We could incur substantial costs as a result of data protection concerns.

The interpretation and application of data protection laws in the U.S., Europe, including but not limited to the General Data Protection Regulation (the "GDPR"), and elsewhere are uncertain and evolving. It is possible that these laws may be interpreted and applied in a manner that is inconsistent with our data practices. Complying with these various laws is difficult and could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business. Further, although we are implementing internal controls and procedures designed to ensure compliance with the GDPR and other privacy-related laws, rules and regulations (collectively, the "Data Protection Laws"), there can be no assurance that our controls and procedures will enable us to be fully compliant with all Data Protection Laws.

Despite our efforts to protect sensitive information and confidential and personal data, comply with applicable laws, rules and regulations and implement data security measures, our facilities, and systems may be vulnerable to security breaches and other data loss, including cyber-attacks and, in fact, we have experienced data security incidents that have not had a material impact on our financial results. In addition, it is not possible to predict the impact on our business of the future loss, alteration or misappropriation of information in our possession related to us, our employees, former employees, customers, suppliers or others. This could lead to negative publicity, legal claims, theft, modification or destruction of proprietary information or key information, damage to or inaccessibility of critical systems, manufacture of defective products, production downtimes, operational disruptions and other significant costs, which could adversely affect our reputation, financial condition and results of operations.

We have recorded a significant amount of intangible assets, which may never generate the returns we expect.

Mergers and acquisitions have resulted in significant increases in identifiable intangible assets and goodwill. Identifiable intangible assets, which primarily include trademarks, trade names, trade secrets, and technology, were approximately \$1.8 billion at September 30, 2018, representing approximately 15% of our total assets. Goodwill recognized in accounting for the mergers and acquisitions was approximately \$6.2 billion at September 30, 2018, representing approximately 51% of our total assets. We may never realize the full value of our identifiable intangible assets and goodwill, and to the extent we were to determine that our identifiable intangible assets or our goodwill were impaired within the meaning of applicable accounting standards, we would be required to write-off the amount of any impairment.

The Company may be subject to risks relating to changes in its tax rates or exposure to additional income tax liabilities.

The Company is subject to income taxes in the United States and various non-U.S. jurisdictions. The Company's domestic and international tax liabilities are dependent upon the location of earnings among these different jurisdictions. The Company's future results of operations could be adversely affected by changes in the Company's effective tax rate as a result of changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets, challenges by tax authorities or changes in tax laws or regulations. In addition, the amount of income taxes paid by the Company is subject to ongoing audits by U.S. federal, state and local tax authorities and by non-U.S. tax authorities. If these audits result in assessments different from amounts reserved, future financial results may include unfavorable adjustments to the Company's tax liabilities, which could have a material adverse effect on the Company's results of operations.

Our stock price may be volatile, and an investment in our common stock could suffer a decline in value.

There has been significant volatility in the market price and trading volume of equity securities, which is unrelated to the operating performance of the companies issuing the securities. These market fluctuations may negatively affect the market price of our common stock. Shareholders may not be able to sell their shares at or above the purchase price due to fluctuations in the market price of our common stock. Such changes could be caused by changes in our operating performance or prospects, including possible changes due to the cyclical nature of the aerospace industry and other factors such as fluctuations in OEM and aftermarket ordering, which could cause short-term swings in profit margins. Or such changes could be unrelated to our operating performance, such as changes in market conditions affecting the stock market generally or the stocks of aerospace companies or changes in the outlook for our common stock, such as changes to or the confidence in our business strategy, changes to or confidence in our management, or expectations for future growth of the Company.

Future sales of our common stock in the public market could lower our share price.

We may sell additional shares of common stock into the public markets or issue convertible debt securities to raise capital in the future. The market price of our common stock could decline as a result of sales of a large number of shares of our common stock in the public markets or the perception that these sales could occur. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities to raise capital at a time and price that we deem appropriate.

Our corporate documents and Delaware law contain certain provisions that could discourage, delay or prevent a change in control of our company.

Provisions in our amended and restated certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition involving us that our stockholders may consider favorable. For example, our amended and restated certificate of incorporation authorizes our Board of Directors to issue up to 149,600,000 shares of "blank check" preferred stock. Without stockholder approval, the Board of Directors has the authority to attach special rights, including voting and dividend rights, to this preferred stock. With these rights, holders of preferred stock could make it more difficult for a third party to acquire us. Our amended and restated certificate of incorporation also provides that the affirmative vote of the holders of at least 75% of the voting power of our issued and outstanding capital stock, voting together as a single class, is required for the alteration, amendment or repeal of certain provisions of our amended and restated certificate of incorporation and certain provisions of our amended and restated bylaws, including the provisions relating to our stockholders' ability to call special meetings, notice provisions for stockholder business to be conducted at an annual meeting, requests for stockholder lists and corporate records, nomination and removal of directors, and filling of vacancies on our Board of Directors.

We are also subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law. Under these provisions, if anyone becomes an "interested stockholder," we may not enter into a "business combination" with that person for three years without special approval, which could discourage a third party from making a takeover offer and could delay or prevent a change of control. For purposes of Section 203, "interested stockholder" means, generally, someone owning 15% or more of our outstanding voting stock or an affiliate of ours that owned 15% or more of our outstanding voting stock during the past three years, subject to certain exceptions as described in Section 203.

We do not regularly declare and pay quarterly or annual cash dividends on our stock.

On July 3, 2013, June 4, 2014, October 14, 2016 and August 23, 2017, the Company's Board of Directors authorized and declared special cash dividends of \$22.00, \$25.00, \$24.00 and \$22.00, respectively, on each outstanding share of common stock and cash dividend equivalent payments to holders of options under its stock option plans.

Notwithstanding the special cash dividends, we do not anticipate declaring regular quarterly or annual cash dividends on our common stock or any other equity security in the foreseeable future. The amounts that may be available to us to pay future special cash dividends are restricted under our debt and other agreements. Any payment of special cash dividends on our common stock in the future will be at the discretion of our Board of Directors and will depend on our results of operations, earnings, capital requirements, financial condition, future prospects, contractual restrictions and other factors deemed relevant by our Board of Directors. Therefore, shareholders should not rely on regular quarterly or annual dividend income from shares of our common stock and should not rely on special dividends with any regularity or at all.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

TransDigm's principal owned properties (defined as greater than 10,000 square feet or related to a principal operation) as of September 30, 2018 are as follows:

Location	Reporting Segment	Square Footage
Brea, CA	Airframe	315,000
Meisbach, Germany	Power & Control	242,000
Liberty, SC	Power & Control	219,000
Waco, TX	Power & Control	218,800
Ingolstadt, Germany	Airframe	191,900
Kent, OH	Airframe	185,000
Liverpool, NY	Power & Control	176,800
Bridport, United Kingdom	Airframe	174,700
Union Gap, WA	Airframe	142,000
Phoenix, AZ	Airframe	138,700
Paks, Hungary	Airframe	137,800
Los Angeles, CA	Power & Control	131,000
Bohemia, NY	Power & Control	124,000
Westbury, NY	Power & Control	112,300
Llangeinor, United Kingdom	Airframe	110,000
Letchworth, United Kingdom	Airframe	88,200
Placentia, CA	Airframe	86,600
Addison, IL	Power & Control	83,300
Herstal, Belgium	Airframe	73,700
Painesville, OH	Power & Control	63,900
Clearwater, FL	Power & Control	61,000
South Euclid, OH	Power & Control	60,000
Wichita, KS	Power & Control	57,000
Branford, CT	Airframe	52,000
Avenel, NJ	Power & Control	48,500
Rancho Cucamonga, CA	Power & Control	47,000
Valencia, CA	Airframe	38,000
Pennsauken, NJ	Airframe	38,000
Ryde, United Kingdom	Power & Control	33,200
Rancho Cucamonga, CA	Airframe	32,700
Melaka, Malaysia	Power & Control	24,800
Deerfield Beach, FL	Non-aviation	20,000

The Brea, Liberty, Kent, Union Gap, Bohemia, Addison, and 47,000 square feet Rancho Cucamonga properties are subject to mortgage liens under our senior secured credit facility.

TransDigm's principal leased properties (defined as greater than 10,000 square feet or related to a principal operation) as of September 30, 2018 are as follows:

Location	Reporting Segment	Square Footage
Nittambuwa, Sri Lanka	Airframe	168,000
Santa Ana, CA	Airframe	159,200
Holmestrand, Norway	Airframe	149,300
Dayton, NV	Airframe	144,000
Everett, WA	Airframe	121,000
Whippany, NJ	Power & Control	115,300
Whippany, NJ	Power & Control	114,300
Goldsboro, NC	Power & Control	101,000
Kunshan, China	Airframe	100,600
Fullerton, CA	Airframe	100,000
Anaheim, CA	Airframe	99,900
Elkhart, IN	Non-aviation	91,500
Davis Junction, IL	Airframe	84,500
Miesbach, Germany	Power & Control	80,800
Kunshan, China	Non-aviation	75,300
Camarillo, CA	Power & Control	70,000
Matamoros, Mexico	Power & Control	60,500
Melbourne, FL	Power & Control	52,100
Tempe, AZ	Power & Control	40,200
Chongqing, China	Airframe	37,700
Collegeville, PA	Airframe	37,000
Northridge, CA	Power & Control	35,000
Erie, PA	Airframe	30,500
Ashford, United Kingdom	Power & Control	28,000
London, United Kingdom	Airframe	27,400
Nogales, Mexico	Airframe	27,000
Bridgend, United Kingdom	Airframe	24,800
Ravenna, OH	Airframe	22,500
Pennsauken, NJ	Airframe	20,500
Lund, Sweden	Power & Control	19,800
Matamoros, Mexico	Power & Control	15,000
Cleveland, OH	Power & Control	13,100
Poway, CA	Power & Control	12,800
Corona, CA	Airframe	12,500
Long Beach, CA	Airframe	12,200

Our Cleveland, OH and Pasadena, CA corporate facilities house our principal executive offices, and we currently lease approximately 20,100 square feet and 5,300 square feet, respectively, for those purposes. TransDigm also leases certain of its other non-material facilities. Management believes that our machinery, plants and offices are in satisfactory operating condition and that it will have sufficient capacity to meet foreseeable future needs without incurring significant additional capital expenditures.

ITEM 3. LEGAL PROCEEDINGS

We and certain of our current or former officers and directors are defendants in a consolidated securities class action captioned *In re TransDigm Group, Inc. Securities Litigation*, Case No. 1:17-cv-01677-DCN (N.D. Ohio). The cases were originally filed on August 10, 2017, and September 18, 2017 and were consolidated on December 5, 2017. A consolidated amended complaint was filed on February 16, 2018. The plaintiffs allege that the defendants made false or misleading statements with respect to, or failed to disclose, the impact of certain alleged business practices in connection with sales to the U.S. government on the Company's growth and profitability. The plaintiffs assert claims under Section 10(b) of the Exchange Act and Rule 10b-5 promulgated

thereunder and Section 20(a) of the Exchange Act, and seek unspecified monetary damages and other relief. In addition, we, as nominal defendant, and certain of our current or former officers and directors are defendants in a shareholder derivative action captioned *Sciabacucchi v. Howley et al.*, No. 1:17-cv-1971-DCN (N.D. Ohio). The case was filed on September 19, 2017. The plaintiffs allege breach of fiduciary duty and other claims arising out of substantially the same actions or inactions alleged in the securities class actions described above. This action has been stayed pending the outcome of a motion to dismiss on the securities class action. Although we are only a nominal defendant in the derivative action, we could have indemnification obligations and/or be required to advance the costs and expenses of the officer and director defendants in the action.

We intend to vigorously defend these matters and believe they are without merit. We also believe we have sufficient insurance coverage available for these matters. Therefore, we do not expect these matters to have a material adverse impact on our financial condition or results of operations. However, given the preliminary status of the litigation, it is difficult to predict the likelihood of an adverse outcome or estimate a range of any potential loss.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on the New York Stock Exchange, or NYSE, under the ticker symbol "TDG."

Holders

On November 2, 2018, there were 35 stockholders of record of our common stock. We estimate that there were approximately 70,000 beneficial stockholders, which includes an estimated amount of stockholders who have their shares held in their accounts by banks and brokers.

Dividends

During fiscal 2017, TD Group's Board of Directors authorized and declared special cash dividends of \$24.00 (in October 2016) and \$22.00 (in August 2017) on each outstanding share of common stock and cash dividend equivalent payments under options granted under its stock incentive plans. No dividends were declared during fiscal 2018.

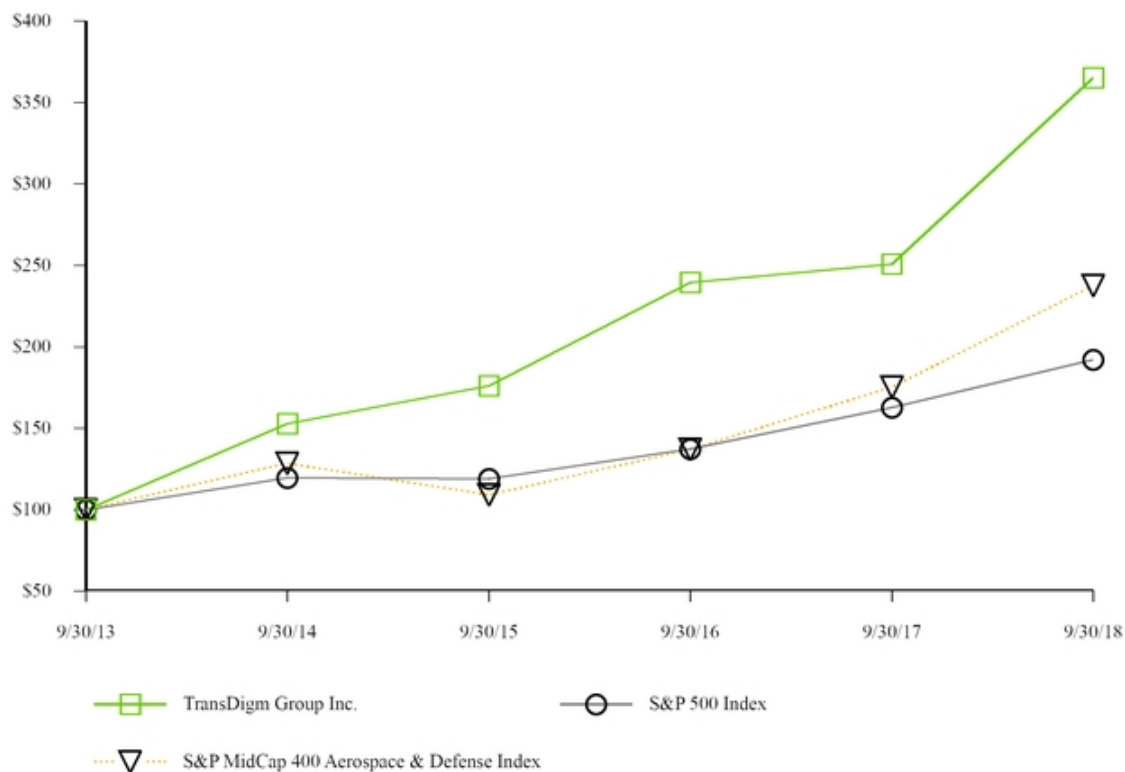
We do not anticipate declaring regular quarterly or annual cash dividends on our common stock in the near future. Any declaration of special cash dividends on our common stock in the future will be at the discretion of our Board of Directors and will depend upon our results of operations, earnings, capital requirements, financial condition, future prospects, contractual restrictions under the senior secured credit facility and Indentures, the availability of surplus under Delaware law and other factors deemed relevant by our Board of Directors. TD Group is a holding company and conducts all of its operations through direct and indirect subsidiaries. Unless TD Group receives dividends, distributions, advances, transfers of funds or other payments from our subsidiaries, TD Group will be unable to pay any dividends on our common stock in the future. The ability of any subsidiaries to take any of the foregoing actions is limited by the terms of our senior secured credit facility and Indentures and may be limited by future debt or other agreements that we may enter into.

Performance Graph

Set forth below is a line graph comparing the cumulative total return of a hypothetical investment in the shares of common stock of TD Group with the cumulative total return of a hypothetical investment in each of the S&P 500 Index and the S&P MidCap 400 Aerospace & Defense Index based on the respective market prices of each such investment on the dates shown below, assuming an initial investment of \$100 on September 30, 2013.

The following performance graph and related information shall not be deemed “soliciting material” nor to be “filed” with the SEC, nor shall such information be incorporated by reference into any future filings under the Securities Act of 1933 or the Securities Exchange Act of 1934, each as amended, except to the extent we specifically incorporate it by reference into such filing.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among TransDigm Group Inc., the S&P 500 Index
and S&P MidCap 400 Aerospace & Defense Index



*\$100 invested on 9/30/13 in stock or index, including reinvestment of dividends.
Fiscal year ending September 30.
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	9/30/13	9/30/14	9/30/15	9/30/16	9/30/17	9/30/18
TransDigm Group Inc.	100.00	152.71	175.97	239.52	250.86	365.32
S&P 500 Index	100.00	119.73	119.00	137.36	162.92	192.10
S&P MidCap 400 Aerospace & Defense Index	100.00	128.40	109.15	136.91	175.37	237.67

Purchases of Equity Securities by the Issuer or Affiliated Purchaser

On November 8, 2017, our Board of Directors, authorized a new stock repurchase program replacing the \$600 million program and permitting repurchases of our outstanding shares not to exceed \$650 million in the aggregate, subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes as described within the *Liquidity and Capital Resources* section of Item 7. - “Management’s Discussion and Analysis of Financial Conditions and Results of Operations.” No

repurchases were made under the program during the fiscal year ended September 30, 2018. As of September 30, 2018, the entire \$650 million of repurchases allowable under the program remained, subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes.

During the fiscal years ended September 30, 2018 and 2017, the Company received 2,119 shares and 2,548 shares, respectively as forfeitures in lieu of payment for withholding taxes on the vesting of restricted stock. The deemed gross cost of the shares was approximately \$0.6 million in both periods at a weighted-average price per share of \$274.62 and \$247.33, respectively.

ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth selected historical consolidated financial and other data of TD Group for the fiscal years ended September 30, 2014 to 2018, which have been derived from TD Group’s audited consolidated financial statements.

Separate historical financial information of TransDigm Inc. is not presented since the 5.50% Senior Subordinated Notes issued in October 2012 (the “2020 Notes”), the 6.00% Senior Subordinated Notes issued in June 2014 (the “2022 Notes”), the 6.50% Senior Subordinated Notes issued June 2014 (the “2024 Notes”), the 6.50% Senior Subordinated Notes issued May 2015 (the “2025 Notes”) and the 6.375% Senior Subordinated Notes issued June 2016 (the “6.375% 2026 Notes”) (also together with the 2020 Notes, the 2022 Notes, the 2024 Notes, the 2025 Notes, and the 2026 Notes, the “Notes”) are fully and unconditionally guaranteed on a senior subordinated basis by TD Group, TransDigm UK and all of TransDigm Inc.’s Domestic Restricted Subsidiaries and because TD Group has no significant operations or assets separate from its investment in TransDigm Inc.

Separate financial information of TransDigm UK Holdings plc (“TransDigm UK”) is not presented because TransDigm UK’s 6.875% Senior Subordinated Notes issued in May 2018 (the “6.875% 2026 Notes”) are fully and unconditionally guaranteed on a senior subordinated basis by TD Group, TransDigm Inc., and all of TransDigm Inc.’s Domestic Restricted Subsidiaries.

Acquisitions of businesses and product lines completed by TD Group during the last five fiscal years are as follows:

Date	Acquisition
December 19, 2013	Airborne Global Inc. (“Airborne”)
March 6, 2014	Elektro-Metall Export GmbH (“EME”)
March 26, 2015	Telair Cargo Group (comprised of Telair International GmbH (“Telair Int’l”), Telair US LLC and Nordisk Aviation Products)
March 31, 2015	Franke Aquarotter GmbH (“Adams Rite Aerospace GmbH”)
May 14, 2015	Pexco LLC (“Pexco Aerospace”)
August 19, 2015	PneuDraulics, Inc. (“PneuDraulics”)
January 4, 2016	Breeze-Eastern Corporation (“Breeze-Eastern”)
June 23, 2016	Data Device Corporation (“DDC”)
September 23, 2016	Young & Franklin Inc. / Tactair Fluid Controls Inc. (“Y&F/Tactair”)
February 22, 2017	Schroth Safety Products Group (“Schroth”)
May 5, 2017, May 31, 2017 and June 1, 2017	North Hills Signal Processing Corp, Cablecraft Motion Controls LLC and Preece Incorporated (together, the “Third Quarter 2017 Acquisitions”)
March 15, 2018	Kirkhill Elastomers (“Kirkhill”)
April 24, 2018	Extant Components Group Holdings, Inc. (together with the product line acquisition on August 17, 2018 listed below, “Extant”)
July 13, 2018	Skandia Inc. (“Skandia”)
August 17, 2018	Certain assets and liabilities of Rockwell Collins (Extant product line acquisition)

All of the acquisitions were accounted for using the acquisition method. The results of operations of the acquired businesses and product lines are included in TD Group’s consolidated financial statements from the effective date of each acquisition.

In connection with the settlement of a Department of Justice investigation into the competitive effects of the acquisition, during the fourth quarter of 2017, the Company committed to dispose of the Schroth business. Therefore, Schroth was classified as held-for-sale beginning in the fourth quarter of fiscal 2017. The results of operations of Schroth are reflected as discontinued operations in the accompanying consolidated financial statements. On January 26, 2018, the Company completed the sale of Schroth in a management buyout to a private equity fund and certain members of Schroth management for approximately \$61.4 million, which includes a working capital adjustment of \$0.3 million that was settled in July 2018. Further disclosure related to Schroth’s discontinued operations is included within Note 22, “Discontinued Operations,” to the consolidated financial statements.

The information presented below should be read together with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the consolidated financial statements and accompanying notes included elsewhere herein.

	Fiscal Years Ended September 30,				
	2018	2017	2016	2015	2014
(in thousands, except per share amounts)					
Statement of Income Data:					
Net sales	\$ 3,811,126	\$ 3,504,286	\$ 3,171,411	\$ 2,707,115	\$ 2,372,906
Gross profit ⁽¹⁾	2,177,510	1,984,627	1,728,063	1,449,845	1,267,874
Selling and administrative expenses	450,095	415,575	382,858	321,624	276,446
Amortization of intangible assets	72,454	89,226	77,445	54,219	63,608
Income from operations ⁽¹⁾	1,654,961	1,479,826	1,267,760	1,074,002	927,820
Interest expense—net	663,008	602,589	483,850	418,785	347,688
Refinancing costs	6,396	39,807	15,794	18,393	131,622
Income from continuing operations before income taxes	985,557	837,430	768,116	636,824	448,510
Income tax provision	24,021	208,889	181,702	189,612	141,600
Income from continuing operations	961,536	628,541	586,414	447,212	306,910
Loss from discontinued operations, net of tax ⁽⁵⁾	(4,474)	(31,654)	—	—	—
Net income	\$ 957,062	\$ 596,887	\$ 586,414	\$ 447,212	\$ 306,910
Net income applicable to common stock	\$ 900,914	\$ 437,630	\$ 583,414	\$ 443,847	\$ 180,284
Denominator for basic and diluted earnings per share under the two-class method:					
Weighted-average common shares outstanding	52,345	52,517	53,326	53,112	52,748
Vested options deemed participating securities	3,252	3,013	2,831	3,494	4,245
Total shares for basic and diluted earnings per share	55,597	55,530	56,157	56,606	56,993
Net earnings per share:					
Net earnings per share from continuing operations—basic and diluted	\$ 16.28	\$ 8.45	\$ 10.39	\$ 7.84	\$ 3.16
Net loss per share from discontinued operations—basic and diluted	(0.08)	(0.57)	—	—	—
Net earnings per share ⁽²⁾	\$ 16.20	\$ 7.88	\$ 10.39	\$ 7.84	\$ 3.16
Cash dividends paid per common share	\$ —	\$ 46.00	\$ —	\$ —	\$ 25.00

	As of September 30,				
	2018	2017	2016	2015	2014
	(in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	\$ 2,073,017	\$ 650,561	\$ 1,586,994	\$ 714,033	\$ 819,548
Working capital ^(3,4)	2,756,905	1,262,558	2,178,094	1,128,993	1,066,735
Total assets ^(3,4)	12,197,467	9,975,661	10,726,277	8,303,935	6,626,786
Long-term debt, including current portion ⁽⁴⁾	12,877,282	11,762,661	10,195,607	8,349,602	7,380,738
Stockholders' deficit	(1,808,471)	(2,951,204)	(651,490)	(1,038,306)	(1,556,099)

- (1) Gross profit and income from operations include the effect of charges relating to purchase accounting adjustments to inventory associated with the acquisition of various businesses and product lines for the fiscal years ended September 30, 2018, 2017, 2016, 2015 and 2014 of \$7,080, \$20,621, \$23,449, \$11,362, and \$10,441, respectively.
- (2) Net earnings per share is calculated by dividing net income applicable to common stock by the basic and diluted weighted average common shares outstanding.
- (3) In connection with adopting ASU 2015-17, "Balance Sheet Classification of Deferred Taxes," for reporting periods ended after October 1, 2015, the Company reclassified \$45,375 and \$37,669 from current deferred income tax assets in our consolidated balance sheets as of September 2015 and 2014, respectively, to non-current deferred income tax liabilities.
- (4) In connection with adopting ASU 2015-03, "Simplifying the Presentation of Debt Issuance Costs," for reporting periods ended after October 1, 2015, the Company reclassified \$77,740 and \$92,393 from debt issuance costs in our consolidated balance sheets as of September 2015 and 2014, respectively, to the current portion of long-term and long-term-term debt.
- (5) During the fourth quarter of fiscal 2017, the Company committed to disposing of Schroth in connection with the settlement of a Department of Justice investigation into the competitive effects of the acquisition. Therefore, Schroth was classified as held-for-sale beginning September 30, 2017. The loss from discontinued operations in the consolidated statements of income for the year ended September 30, 2017 includes a \$32.0 million impairment charge to write down the assets to fair value. On January 26, 2018, the Company completed the sale of Schroth in a management buyout to a private equity fund and certain members of Schroth management for approximately \$61.4 million, which includes a working capital adjustment of \$0.3 million that was settled in July 2018. Refer to Note 22, "Discontinued Operations," to the consolidated financial statements for further information.

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 commitments 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.

	Fiscal Years Ended September 30,				
	2018	2017	2016	2015	2014
	(in thousands)				
Other Financial Data:					
Cash flows provided by (used in):					
Operating activities	\$ 1,022,173	\$ 788,733	\$ 683,298	\$ 520,938	\$ 541,222
Investing activities	(683,577)	(287,003)	(1,443,046)	(1,679,149)	(329,638)
Financing activities	1,085,600	(1,443,682)	1,632,467	1,054,947	43,973
Depreciation and amortization	129,844	141,025	121,670	93,663	96,385
Capital expenditures	73,341	71,013	43,982	54,871	34,146
Ratio of earnings to fixed charges ⁽¹⁾	2.5x	2.4x	2.6x	2.5x	2.3x
Other Data:					
EBITDA ⁽²⁾	\$ 1,778,409	\$ 1,581,044	\$ 1,373,636	\$ 1,149,272	\$ 892,583
EBITDA As Defined ⁽²⁾	\$ 1,876,558	\$ 1,710,563	\$ 1,495,196	\$ 1,233,654	\$ 1,073,207

(1) For purposes of computing the ratio of earnings to fixed charges, earnings consist of earnings from continuing operations before income taxes plus fixed charges. Fixed charges consist of interest expense, amortization of debt issuance costs, original issue discount and premium and the portion (approximately 33%) of rental expense that management believes is representative of the interest component of rental expense.

(2) EBITDA represents earnings from continuing operations before interest, taxes, depreciation and amortization. EBITDA As Defined represents EBITDA plus, as applicable for each relevant period, certain adjustments as set forth in the reconciliation of net income to EBITDA and EBITDA As Defined and the reconciliation of net cash provided by operating activities to EBITDA and EBITDA As Defined presented below. See “Non-GAAP Financial Measures” for additional information and limitations regarding these non-GAAP financial measures.

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

	Fiscal Years Ended September 30,				
	2018	2017	2016	2015	2014
	(in thousands)				
Net income	\$ 957,062	\$ 596,887	\$ 586,414	\$ 447,212	\$ 306,910
Loss from discontinued operations, net of tax ⁽¹⁾	(4,474)	(31,654)	—	—	—
Income from continuing operations	961,536	628,541	586,414	447,212	306,910
Adjustments:					
Depreciation and amortization expense	129,844	141,025	121,670	93,663	96,385
Interest expense, net	663,008	602,589	483,850	418,785	347,688
Income tax provision	24,021	208,889	181,702	189,612	141,600
EBITDA	1,778,409	1,581,044	1,373,636	1,149,272	892,583
Adjustments:					
Inventory purchase accounting adjustments ⁽²⁾	7,080	20,621	23,449	11,362	10,441
Acquisition integration costs ⁽³⁾	17,484	6,341	18,539	12,554	7,239
Acquisition transaction-related expenses ⁽⁴⁾	3,886	4,229	15,711	12,289	3,480
Non-cash stock and deferred compensation expense ⁽⁵⁾	58,481	45,524	48,306	31,500	26,332
Refinancing costs ⁽⁶⁾	6,396	39,807	15,794	18,393	131,622
Other, net ⁽⁷⁾	4,822	12,997	(239)	(1,716)	1,510
EBITDA As Defined	\$ 1,876,558	\$ 1,710,563	\$ 1,495,196	\$ 1,233,654	\$ 1,073,207

(1) During the fourth quarter of fiscal 2017, the Company committed to disposing of Schroth in connection with the settlement of a Department of Justice investigation into the competitive effects of the acquisition. Therefore, Schroth was classified as held-for-sale beginning September 30, 2017. On January 26, 2018, the Company completed the sale of Schroth in a management buyout to a private equity fund and certain members of Schroth management for approximately \$61.4 million, which includes a working capital adjustment of \$0.3 million that was settled in July 2018. Refer to Note 22, "Discontinued Operations," to the consolidated financial statements for further information.

(2) 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.

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

(4) 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.

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

(6) Represents costs expensed related to debt financing activities, including new issuances, extinguishments, refinancings and amendments to existing agreements.

(7) Primarily represents foreign currency transaction gain or loss, payroll withholding taxes on dividend equivalent payments and stock option exercises, and gain or loss on sale of fixed assets.

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

	Fiscal Years Ended September 30,				
	2018	2017	2016	2015	2014
	(in thousands)				
Net cash provided by operating activities	\$ 1,022,173	\$ 788,733	\$ 683,298	\$ 520,938	\$ 541,222
Adjustments:					
Changes in assets and liabilities, net of effects from acquisitions of businesses	4,936	83,753	110,905	24,322	(27,967)
Net gain on sale of real estate	—	—	—	—	804
Interest expense, net ⁽¹⁾	640,880	581,483	467,639	402,988	333,753
Income tax provision—current ⁽²⁾	175,661	215,385	175,894	188,952	151,016
Non-cash stock and deferred compensation expense ⁽³⁾	(58,481)	(45,524)	(48,306)	(31,500)	(26,332)
Excess tax benefit from exercise of stock options ⁽²⁾	—	—	—	61,965	51,709
Refinancing costs ⁽⁴⁾	(6,396)	(39,807)	(15,794)	(18,393)	(131,622)
EBITDA from discontinued operations ⁽⁹⁾	(364)	(2,979)	—	—	—
EBITDA	1,778,409	1,581,044	1,373,636	1,149,272	892,583
Adjustments:					
Inventory purchase accounting adjustments ⁽⁵⁾	7,080	20,621	23,449	11,362	10,441
Acquisition integration costs ⁽⁶⁾	17,484	6,341	18,539	12,554	7,239
Acquisition transaction-related expenses ⁽⁷⁾	3,886	4,229	15,711	12,289	3,480
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Refinancing costs ⁽⁴⁾	6,396	39,807	15,794	18,393	131,622
Other, net ⁽⁸⁾	4,822	12,997	(239)	(1,716)	1,510
EBITDA As Defined	\$ 1,876,558	\$ 1,710,563	\$ 1,495,196	\$ 1,233,654	\$ 1,073,207

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

(2) For the period ended September 30, 2016, the income tax provision and excess tax benefit from exercise of stock options were impacted by the adoption of ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting."

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

(4) Represents costs expensed related to debt financing activities, including new issuances, extinguishments, refinancings and amendments to existing agreements.

(5) 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.

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

(7) 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.

(8) Primarily represents foreign currency transaction gain or loss, payroll withholding taxes on dividend equivalent payments and stock option exercises, and gain or loss on sale of fixed assets.

(9) During the fourth quarter of fiscal 2017, the Company committed to disposing of Schroth in connection with the settlement of a Department of Justice investigation into the competitive effects of the acquisition. Therefore, Schroth was classified as held-for-sale beginning September 30, 2017. On January 26, 2018, the Company completed the sale of Schroth in a management buyout to a private equity fund and certain members of Schroth management for approximately \$61.4 million, which includes a working capital adjustment of \$0.3 million that was settled in July 2018. Refer to Note 22, "Discontinued Operations," to the consolidated financial statements for further information.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read together with "Selected Financial Data" and TD Group's consolidated financial statements and the related notes included elsewhere in this report. The following discussion may contain predictions, estimates and other forward-looking statements that involve a number of risks and uncertainties, including those discussed under the heading entitled "Risk Factors" included elsewhere in this report. These risks could cause our actual results to differ materially from any future performance suggested below.

Overview

For fiscal year 2018, we generated net sales of \$3,811.1 million, gross profit of \$2,177.5 million or 57.1% of sales, and net income of \$957.1 million. We believe we have achieved steady, long-term growth in sales and improvements in operating performance since our formation in 1993 due to our competitive strengths and through execution of our value-driven operating strategy. More specifically, focusing our businesses on our value-driven operating strategy of obtaining profitable new business, carefully controlling the cost structure and pricing our highly engineered value-added products to fairly reflect the value we provide and the resources required to do so has historically resulted in improvements in gross profit and income from operations over the long term.

Our selective acquisition strategy has also contributed to the growth of our business. The integration of certain acquisitions into our existing businesses combined with implementing our proven operating strategy has historically resulted in improvements of the financial performance of the acquired business.

We believe our key competitive strengths include:

Large and Growing Installed Product Base with Aftermarket Revenue Stream. We provide components to a large and growing installed base of aircraft to which we supply aftermarket products. We estimate that our products are installed on approximately 95,000 commercial transport, regional transport, military and general aviation fixed wing turbine aircraft and rotary wing aircraft.

Diversified Revenue Base. We believe that our diversified revenue base reduces our dependence on any particular product, platform or market channel and has been a significant factor in maintaining our financial performance. Our products are installed on almost all of the major commercial aircraft platforms now in production. We expect to continue to develop new products for military and commercial applications.

Barriers to Entry. We believe that the niche nature of our markets, the industry's stringent regulatory and certification requirements, the large number of products that we sell and the investments necessary to develop and certify products create potential disincentives to competition for certain products.

Our business strategy is made up of two key elements: (1) a value-driven operating strategy focused around our three core value drivers and (2) a selective acquisition strategy.

Value-Driven Operating Strategy. Our three core value drivers are:

- **Obtaining Profitable New Business.** We attempt to obtain profitable new business by using our technical expertise and application skill and our detailed knowledge of our customer base and the individual niche markets in which we operate. We have regularly been successful in identifying and developing both aftermarket and OEM products to drive our growth.
- **Improving Our Cost Structure.** We are committed to maintaining and continuously improving our lean cost structure through detailed attention to the cost of each of the products that we offer and our organizational structure, with a focus on reducing the cost of each.
- **Providing Highly Engineered Value-Added Products to Customers.** We focus on the engineering, manufacturing and marketing of a broad range of highly engineered niche products that we believe provide value to our customers. We believe we have been consistently successful in communicating to our customers the value of our products. This has generally enabled us to price our products to fairly reflect the value we provide and the resources required to do so.

Selective Acquisition Strategy. We selectively pursue the acquisition of proprietary aerospace component businesses when we see an opportunity to create value through the application of our three core value-driven operating strategies. The aerospace industry, in particular, remains highly fragmented, with many of the companies in the industry being small private businesses or small non-core operations of larger businesses. We have significant experience among our management team in executing acquisitions and integrating acquired businesses into our company and culture. As of the date of this report, we have successfully acquired approximately 70 businesses and/or product lines since our formation in 1993. Many of these acquisitions have been integrated into an existing TransDigm production facility, which enables a higher production capacity utilization, which in turn improves gross profit levels due to the ability to spread the fixed manufacturing overhead costs over higher production volume.

Acquisitions and the divestiture during the most recent three fiscal years are more fully described in Note 2, “Acquisitions and Divestitures,” in the notes to the consolidated financial statements included herein.

Critical Accounting Policies

Our consolidated financial statements have been prepared in conformity 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.

Below are those policies applied in preparing our financial statements that management believes are the most dependent on the application of estimates and assumptions. For additional accounting policies, see Note 3, “Summary of Significant Accounting Policies,” in the notes to the consolidated financial statements included herein.

Revenue Recognition and Related Allowances: Revenue is recognized from the sale of products when title and risk of loss passes to the customer, which is generally at the time of shipment. Substantially all product sales are made pursuant to firm, fixed-price purchase orders received from customers. Collectibility of amounts recorded as revenue is reasonably assured at the time of sale. Provisions for returns, uncollectible accounts and the cost of repairs under contract warranty provisions are provided for in the same period as the related revenues are recorded and are principally based on historical results modified, as appropriate, by the most current information available. We have a history of making reasonably dependable estimates of such allowances; however, due to uncertainties inherent in the estimation process, it is possible that actual results may vary from the estimates and the differences could be material.

Allowance for Uncollectible Accounts: Management estimates the allowance for uncollectible accounts based on the aging of the accounts receivable and customer creditworthiness. The allowance also incorporates a provision for the estimated impact of disputes with customers. Management’s estimate of the allowance amounts that are necessary includes amounts for specifically identified credit losses and estimated credit losses based on historical information. The determination of the amount of the allowance for uncollectible accounts is subject to significant levels of judgment and estimation by management. Depending on the resolution of potential credit and other collection issues, or if the financial condition of any of the Company’s customers were to deteriorate and their ability to make required payments were to become impaired, increases in these allowances may be required. Historically, changes in estimates in the allowance for uncollectible accounts have not been significant.

Inventories: Inventories are stated at the lower of cost or net realizable value. 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. Because the Company sells products that are installed on airframes that can be in-service for 25 or more years, it must keep a supply of such products on hand while the airframes are in use. Where management estimated that the net realizable value was below cost or determined that future demand was lower than current inventory levels, based on historical experience, current and projected market demand, current and projected volume trends and other relevant current and projected factors associated with the current economic conditions, a reduction in inventory cost to estimated net realizable value was made by recording a provision included in cost of sales. Although management believes that the Company’s estimates of excess and obsolete inventory are reasonable, actual results may differ materially from the estimates and additional provisions may be required in the future. In addition, in accordance with industry practice, all inventories are classified as current assets as all inventories are available and necessary to support current sales, even though a portion of the inventories may not be sold within one year. Historically, changes in estimates in the net realizable value of inventories have not been significant.

Goodwill and Other Intangible Assets: In accordance with ASC 805, “Business Combinations,” the Company uses the acquisition method of accounting to allocate costs of acquired businesses to the assets acquired and liabilities assumed based on their estimated fair values at the dates of acquisition. The excess costs of acquired businesses over the fair values of the assets acquired and liabilities assumed were recognized as goodwill. The valuations of the acquired assets and liabilities will impact the determination of future operating results. In addition to using management estimates and negotiated amounts, the Company used a variety of information sources to determine the estimated fair values of acquired assets and liabilities including third-party appraisals for the estimated value and lives of identifiable intangible assets. Fair value adjustments to the Company’s assets and liabilities are recognized and the results of operations of the acquired business are included in our consolidated financial statements from the effective date of the merger or acquisition.

Intangible assets other than goodwill are recognized if the benefit of the intangible asset is obtained through contractual or other legal rights, or if the intangible asset can be sold, transferred, licensed or exchanged, regardless of the Company’s intent to do so. Goodwill and identifiable intangible assets are recorded at their estimated fair value on the date of acquisition and are reviewed at least annually for impairment based on cash flow projections and fair value estimates.

GAAP requires that the annual, and any interim, impairment assessment be performed at the reporting unit level. The reporting unit level is one level below an operating segment. Substantially all goodwill was determined and recognized for each reporting

unit pursuant to the accounting for the merger or acquisition as of the date of each transaction. With respect to acquisitions integrated into an existing reporting unit, any acquired goodwill is combined with the goodwill of the reporting unit.

At the time of goodwill impairment testing, the Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, and whether it is necessary to perform the quantitative goodwill impairment test. The quantitative test is required only if the Company concludes that it is more likely than not that a reporting unit's fair value is less than its carrying amount, or if the Company elects not to perform a qualitative assessment of a reporting unit. For the quantitative test, management determines the estimated fair value through the use of a discounted cash flow valuation model incorporating discount rates commensurate with the risks involved for each reporting unit. If the calculated estimated fair value is less than the current carrying value, impairment of goodwill of the reporting unit may exist. The use of a discounted cash flow valuation model to determine estimated fair value is common practice in impairment testing. The key assumptions used in the discounted cash flow valuation model for impairment testing includes discount rates, growth rates, cash flow projections and terminal value rates. Discount rates are set by using the Weighted Average Cost of Capital ("WACC") methodology. The WACC methodology considers market and industry data as well as company specific risk factors for each reporting unit in determining the appropriate discount rates to be used. The discount rate utilized for each reporting unit is indicative of the return an investor would expect to receive for investing in such a business.

Management, considering industry and company-specific historical and projected data, develops growth rates, sales projections and cash flow projections for each reporting unit. Terminal value rate determination follows common methodology of capturing the present value of perpetual cash flow estimates beyond the last projected period assuming a constant WACC and low long-term growth rates. As an indicator that each reporting unit has been valued appropriately through the use of the discounted cash flow valuation model, the aggregate of all reporting unit's estimated fair value is reconciled to the total market capitalization of the Company.

The Company had 35 reporting units with goodwill as of the first day of the fourth quarter of fiscal 2018, the date of the last annual impairment test. The estimated fair values of each of the reporting units was substantially in excess of their respective carrying values, and therefore, no goodwill impairment was recorded. The Company performed a sensitivity analysis on the discount rate, which is a significant assumption in the calculation of fair values. With a one percentage point increase in the discount rate, nearly all of the reporting units would continue to have fair values substantially in excess of their respective carrying values.

Management tests indefinite-lived intangible assets for impairment at the asset level, as determined by appropriate asset valuation at the time of acquisition. The impairment test for indefinite-lived intangible assets consists of a comparison between the estimated fair values and carrying values. If the carrying amounts of intangible assets that have indefinite useful lives exceed their estimated fair values, an impairment loss will be recognized in an amount equal to the difference. Management utilizes the royalty savings valuation method to determine the estimated fair value for each indefinite-lived intangible asset. In this method, management estimates the royalty savings arising from the ownership of the intangible asset. The key assumptions used in estimating the royalty savings for impairment testing include discount rates, royalty rates, growth rates, sales projections and terminal value rates. Discount rates used are similar to the rates developed by the WACC methodology considering any differences in company-specific risk factors between reporting units and the indefinite-lived intangible assets. Royalty rates are established by management with the advice of valuation experts and periodically substantiated by valuation experts. Management, considering industry and company-specific historical and projected data, develops growth rates and sales projections for each significant intangible asset. Terminal value rate determination follows common methodology of capturing the present value of perpetual sales estimates beyond the last projected period assuming a constant WACC and low long-term growth rates.

The discounted cash flow and royalty savings valuation methodologies require management to make certain assumptions based upon information available at the time the valuations are performed. Actual results could differ from these assumptions. Management believes the assumptions used are reflective of what a market participant would have used in calculating fair value considering the current economic conditions.

Stock-Based Compensation: The cost of the Company's stock-based compensation is recorded in accordance with ASC 718, "Stock Compensation." The Company uses a Black-Scholes-Merton option pricing model to estimate the grant-date fair value of the stock options awarded. The Black-Scholes-Merton model requires assumptions regarding the expected volatility of the Company's common shares, the risk-free interest rate, the expected life of the stock options award and the Company's dividend yield. The Company utilizes historical data in determining these assumptions. An increase or decrease in the assumptions or economic events outside of management's control could have an impact on the Black-Scholes-Merton model.

Income Taxes: The Company estimates income taxes in each jurisdiction in which it operates. This involves estimating taxable earnings, specific taxable and deductible items, the likelihood of generating sufficient future taxable income to utilize deferred tax assets and possible exposures related to future tax audits. To the extent these estimates change, adjustments to deferred and accrued income taxes are made in the period in which the changes occur. Historically, such adjustments have not been significant.

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):

	Fiscal Years Ended September 30,					
	2018	2018 % of Sales	2017	2017 % of Sales	2016	2016 % of Sales
Net sales	\$ 3,811,126	100.0 %	\$ 3,504,286	100.0 %	\$ 3,171,411	100.0%
Cost of sales	1,633,616	42.9	1,519,659	43.4	1,443,348	45.5
Selling and administrative expenses	450,095	11.8	415,575	11.9	382,858	12.1
Amortization of intangible assets	72,454	1.9	89,226	2.5	77,445	2.4
Income from operations	1,654,961	43.4	1,479,826	42.2	1,267,760	40.0
Interest expense, net	663,008	17.4	602,589	17.2	483,850	15.3
Refinancing costs	6,396	0.2	39,807	1.1	15,794	0.5
Income tax provision	24,021	0.6	208,889	6.0	181,702	5.7
Income from continuing operations	961,536	25.2	628,541	17.9	586,414	18.5
Loss from discontinued operations, net of tax	(4,474)	(0.1)	(31,654)	(0.9)	—	—
Net income	\$ 957,062	25.1 %	\$ 596,887	17.0 %	\$ 586,414	18.5%

Fiscal year ended September 30, 2018 compared with fiscal year ended September 30, 2017

Total Company

Net Sales. Net organic sales and acquisition sales and the related dollar and percentage changes for the fiscal years ended September 30, 2018 and 2017 were as follows (amounts in millions):

	Fiscal Years Ended			% Change Total Sales
	September 30, 2018	September 30, 2017	Change	
Organic sales	\$ 3,695.9	\$ 3,504.3	\$ 191.6	5.5%
Acquisition sales	115.2	—	115.2	3.3%
	\$ 3,811.1	\$ 3,504.3	\$ 306.8	8.8%

Acquisition sales represent sales of acquired businesses for the period up to one year subsequent to their acquisition date. The amount of acquisition sales shown in the table above was attributable to the acquisitions of Kirkhill, Extant and Skandia in fiscal year 2018, and the Third Quarter 2017 Acquisitions described in Note 2, "Acquisitions and Divestitures".

The increase in organic sales was primarily driven by commercial aftermarket sales increasing by \$109.6 million, or 9.0%, defense sales increasing by \$62.3 million, or 5.3%, and commercial OEM sales increasing by \$7.5 million, or 0.8%.

Cost of Sales and Gross Profit. Cost of sales increased by \$113.9 million, or 7.5%, to \$1,633.6 million for the fiscal year ended September 30, 2018 compared to \$1,519.7 million for the fiscal year ended September 30, 2017. Cost of sales and the related percentage of total sales for the fiscal years ended September 30, 2018 and 2017 were as follows (amounts in millions):

	Fiscal Years Ended		Change	% Change
	September 30, 2018	September 30, 2017		
Cost of sales—excluding costs below	\$ 1,607.2	\$ 1,482.9	\$ 124.3	8.4 %
% of total sales	42.2 %	42.3%		
Inventory purchase accounting adjustments	7.1	20.6	(13.5)	(65.5)%
% of total sales	0.2 %	0.6%		
Foreign currency (gain) loss	(0.4)	7.6	(8.0)	(105.3)%
% of total sales	— %	0.2%		
Acquisition integration costs	13.8	4.0	9.8	245.0 %
% of total sales	0.4 %	0.1%		
Stock compensation expense	5.9	4.6	1.3	28.3 %
% of total sales	0.2 %	0.1%		
Total cost of sales	1,633.6	1,519.7	\$ 113.9	7.5 %
% of total sales	42.9 %	43.4%		
Gross profit	\$ 2,177.5	\$ 1,984.6	\$ 192.9	9.7 %
Gross profit percentage	57.1 %	56.6%		

The net increase in the dollar amount of cost of sales during the fiscal year ended September 30, 2018 was primarily due to increased volume associated with the sales from acquisitions and organic sales growth offset by a reduction in purchase accounting adjustments on inventory and a benefit from foreign exchange rate fluctuations.

Gross profit as a percentage of sales increased by 0.5 percentage points to 57.1% for the fiscal year ended September 30, 2018 from 56.6% for the fiscal year ended September 30, 2017. The dollar amount of gross profit increased by \$192.9 million, or 9.7%, for the fiscal year ended September 30, 2018 compared to the comparable period last year due to the following items:

- Gross profit on the sales from the acquisitions indicated above (excluding acquisition-related costs) was approximately \$49.3 million for the fiscal year ended September 30, 2018, which represented gross profit of approximately 42.8% of the acquisition sales. The lower gross profit margin on the acquisition sales decreased gross profit as a percentage of consolidated sales by approximately 0.5 percentage points.
- 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 \$133.2 million for the fiscal year ended September 30, 2018.
- Also contributing to the increase in gross profit were lower inventory purchase accounting adjustments of \$13.5 million and \$8.0 million in favorable foreign currency movement, particularly related to the U.S. dollar against the Euro over the course of fiscal 2018 compared to fiscal 2017. Partially offsetting these increases in gross profit is an increase in acquisition integration costs of \$9.8 million and an increase in stock compensation expense of \$1.3 million for the fiscal year ended September 30, 2018.

Selling and Administrative Expenses. Selling and administrative expenses increased by \$34.5 million to \$450.1 million, or 11.8% of sales, for the fiscal year ended September 30, 2018 from \$415.6 million, or 11.9% of sales, for the comparable period last year. Selling and administrative expenses and the related percentage of total sales for the fiscal years ended September 30, 2018 and 2017 were as follows (amounts in millions):

	Fiscal Years Ended		Change	% Change
	September 30, 2018	September 30, 2017		
Selling and administrative expenses—excluding costs below	\$ 389.9	\$ 368.1	\$ 21.8	5.9%
% of total sales	10.2%	10.5%		
Stock compensation expense	52.6	41.0	11.6	28.3%
% of total sales	1.4%	1.2%		
Acquisition-related expenses	7.6	6.5	1.1	16.9%
% of total sales	0.2%	0.2%		
Total selling and administrative expenses	\$ 450.1	\$ 415.6	\$ 34.5	8.3%
% of total sales	11.8%	11.9%		

The increase in the dollar amount of selling and administrative expenses during the fiscal year ended September 30, 2018 is primarily due to an increase in stock compensation expense of \$11.6 million, higher selling and administrative expenses from organic sales growth of \$11.4 million and recent acquisitions of approximately \$10.4 million, which was approximately 9% of acquisition sales, and an increase in acquisition-related expenses of \$1.1 million.

Amortization of Intangible Assets. Amortization of intangible assets decreased \$16.8 million to \$72.4 million for the fiscal year ended September 30, 2018 from \$89.2 million for the comparable period last year. The net decrease was primarily due to the order backlog recorded in connection with the Young & Franklin/Tactair and Data Device Corporation acquisitions becoming fully amortized prior to fiscal 2018. This is slightly offset by amortization expense on the definite-lived intangible assets (i.e., technology and order backlog) recorded in connection with the Skandia, Extant, Kirkhill and the Third Quarter 2017 acquisitions.

Refinancing Costs. Refinancing costs of \$6.4 million were recorded during the year ended September 30, 2018 representing debt issuance costs expensed in connection with the debt financing activity as disclosed in Note 11, "Debt," to the consolidated financial statements. Refinancing costs of \$39.8 million recorded during the fiscal year ended September 30, 2017 primarily consisted of \$28.8 million in premium paid on the redemption of the 2021 Notes and the write-off of \$3.1 million in unamortized debt issuance costs and debt issuance costs expensed in connection with new debt issuance that occurred in fiscal 2017.

Interest Expense-net. Interest expense-net includes interest on borrowings outstanding, amortization of debt issuance costs, original issue discount and premium, and revolving credit facility fees offset by interest income. Interest expense-net increased \$60.4 million, or 10.0%, to \$663.0 million for the fiscal year ended September 30, 2018 from \$602.6 million for the comparable 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 \$12,603 million for the fiscal year ended September 30, 2018 compared to approximately \$10,993 million for the fiscal year ended September 30, 2017. The weighted average cash interest rate was at 5.1% during the fiscal year ended September 30, 2018 compared to 5.3% in the prior year. The increase in weighted average level of borrowings was primarily due to the activity in the third fiscal quarter of 2018 consisting of the incurrence of additional term loans of \$700 million (gross), \$500 million in 6.875% 2026 senior subordinated notes, an additional \$100 million drawn on the trade receivable securitization facility in the fourth quarter of fiscal 2017 and additional net debt financing of \$575 million in the fourth quarter of fiscal 2017. The increases in new debt described above was partially offset by principal payments on the term loans over the comparable period. The weighted average interest rate for cash interest payments on total borrowings outstanding at September 30, 2018 was 5.2%.

Income Taxes. Income tax expense as a percentage of income before income taxes was approximately 2.4% for the fiscal year ended September 30, 2018 compared to 24.9% for the fiscal year ended September 30, 2017. The Company's lower effective tax rate for year ended September 30, 2018 was primarily due to a reduction in the U.S. federal corporate tax rate that was enacted in the Tax Cuts and Jobs Act ("the Act") which reduced the tax rate from 35% to 21% as well the one-time impact related to the remeasurement of U.S. deferred tax liabilities under the Act. As a result, the blended statutory tax rate for the fiscal year is 24.5%. The Company's effective tax rate for the fiscal year ended September 30, 2017 was less than the Federal statutory tax rate due primarily to excess tax benefits on equity compensation, foreign earnings taxed at rates lower than the U.S. statutory rates, and the domestic manufacturing deduction. The decrease in the effective tax rate for the fiscal year ended September 30, 2018 compared to the fiscal year ended September 30, 2017 was primarily due to the reduction in the U.S. federal corporate tax rate and the one-time impact under the Act.

Loss from Discontinued Operations. On January 26, 2018, the Company completed the sale of Schroth in a management buy out to a private equity fund and certain members of Schroth management for approximately \$61.4 million which includes a

working capital adjustment of \$0.3 million that was settled in July 2018. The loss from discontinued operations was \$4.5 million for the fiscal year ended September 30, 2018. Loss from discontinued operations is comprised of the operating loss from the Schroth operations that were classified as held-for-sale as of September 30, 2017. The loss includes a \$32 million impairment charge to write-down Schroth's assets to fair value. More detailed information can be found in Note 22, "Discontinued Operations."

Net Income. Net income increased \$360.2 million, or 60.3%, to \$957.1 million for the fiscal year ended September 30, 2018 compared to net income of \$596.9 million for the fiscal year ended September 30, 2017, primarily as a result of the factors referred to above.

Earnings per Share. The basic and diluted earnings per share were \$16.20 for the fiscal year ended September 30, 2018 and \$7.88 per share for the fiscal year ended September 30, 2017. For the fiscal year ended September 30, 2018, basic and diluted earnings per share from continuing operations were \$16.28 and basic and diluted loss per share from discontinued operations were (\$0.08). For the fiscal year ended September 30, 2017, basic and diluted earnings per share from continuing operations were \$8.45 and basic and diluted loss per share from discontinued operations were (\$0.57). Net income for the fiscal year ended September 30, 2018 of \$957.1 million was decreased by dividend equivalent payments of \$56.1 million resulting in net income available to common shareholders of \$900.9 million. Net income for the fiscal year ended September 30, 2017 of \$596.9 million was decreased by dividend equivalent payments of \$159.3 million resulting in net income available to common shareholders of \$437.6 million. The increase in earnings per share of \$8.32 per share to \$16.20 per share is a result of the factors referred to above.

Business Segments

Effective October 1, 2017, the Company made an organizational realignment of certain businesses comprising the Power & Control, Airframe, and the Non-Aviation segments. Operating results for the year ended September 30, 2017 were reclassified to conform to the presentation for the fiscal year ended September 30, 2018.

Segment Net Sales. Net sales by segment for the fiscal years ended September 30, 2018 and 2017 were as follows (amounts in millions):

	Fiscal Years Ended September 30,					
	2018	% of Sales	2017	% of Sales	Change	% Change
Power & Control	\$ 2,139.1	56.1%	\$ 1,927.2	55.0%	\$ 211.9	11.0%
Airframe	1,531.0	40.2%	1,442.1	41.2%	88.9	6.2%
Non-aviation	141.0	3.7%	135.0	3.8%	6.0	4.4%
	<u>\$ 3,811.1</u>	<u>100.0%</u>	<u>\$ 3,504.3</u>	<u>100.0%</u>	<u>\$ 306.8</u>	<u>8.8%</u>

Organic sales for the Power & Control segment increased \$153.7 million, or an increase of 8.0%, when compared to the fiscal year ended September 30, 2017. The organic sales increase resulted primarily from increases in commercial aftermarket sales (\$45.7 million, an increase of 7.7%), defense sales (\$74.5 million, an increase of 8.7%), and commercial OEM sales (\$26.9 million, an increase of 6.3%). Acquisition sales for the Power & Control segment totaled \$58.2 million, or an increase of 3.0%, resulting from the acquisition of Extant and the Third Quarter 2017 Acquisitions.

Organic sales for the Airframe segment increased \$31.9 million, or an increase of 2.2%, when compared to the fiscal year ended September 30, 2017. The organic sales increase resulted primarily from increases in commercial aftermarket sales (\$63.9 million, an increase of 10.2%) slightly offset by decreases in commercial OEM sales (\$17.9 million, a decrease of 3.7%) and defense sales (\$14.0 million, a decrease of 4.4%). Acquisition sales for the Airframe segment totaled \$57.0 million, or an increase of 4.0%, resulting from the acquisitions of Kirkhill and Skandia.

EBITDA As Defined. EBITDA As Defined by segment for the fiscal years ended September 30, 2018 and 2017 were as follows (amounts in millions):

	Fiscal Years Ended September 30,					
	2018	% of Segment Sales	2017	% of Segment Sales	Change	% Change
Power & Control	\$ 1,114.4	52.1%	\$ 980.0	50.9%	\$ 134.4	13.7%
Airframe	759.3	49.6%	726.6	50.4%	32.7	4.5%
Non-aviation	44.3	31.4%	42.5	31.5%	1.8	4.2%
	<u>\$ 1,918.0</u>	<u>50.3%</u>	<u>\$ 1,749.1</u>	<u>49.9%</u>	<u>\$ 168.9</u>	<u>9.7%</u>

Organic EBITDA As Defined for the Power & Control segment increased approximately \$107.3 million for the fiscal year ended September 30, 2018 compared to the fiscal year ended September 30, 2017. EBITDA As Defined from the acquisition of Extant and the Third Quarter 2017 Acquisitions was approximately \$27.1 million for the fiscal year ended September 30, 2018.

Organic EBITDA As Defined for the Airframe segment increased approximately \$18.3 million for the fiscal year ended September 30, 2018 compared to the fiscal year ended September 30, 2017. EBITDA As Defined from the acquisitions of Kirkhill and Skandia was approximately \$14.4 million for the fiscal year ended September 30, 2018.

Fiscal year ended September 30, 2017 compared with fiscal year ended September 30, 2016

Total Company

Net Sales. Net organic sales and acquisition sales and the related dollar and percentage changes for the fiscal years ended September 30, 2017 and 2016 were as follows (amounts in millions):

	Fiscal Years Ended		Change	% Change Total Sales
	September 30, 2017	September 30, 2016		
Organic sales	\$ 3,248.6	\$ 3,171.4	\$ 77.2	2.4%
Acquisition sales	255.7	—	255.7	8.1%
	<u>\$ 3,504.3</u>	<u>\$ 3,171.4</u>	<u>\$ 332.9</u>	<u>10.5%</u>

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

The increase in organic sales was primarily driven by commercial aftermarket organic sales increasing by \$34.8 million, or 3.0% and defense organic sales increasing by \$41.5 million, or 4.4%. Slightly offsetting the increases was commercial OEM organic sales decreasing by \$2.8 million, or 0.3%.

Cost of Sales and Gross Profit. Cost of sales increased by \$76.4 million, or 5.3%, to \$1,519.7 million for the fiscal year ended September 30, 2017 compared to \$1,443.3 million for the fiscal year ended September 30, 2016. Cost of sales and the related percentage of total sales for the fiscal years ended September 30, 2017 and 2016 were as follows (amounts in millions):

	Fiscal Years Ended		Change	% Change
	September 30, 2017	September 30, 2016		
Cost of sales—excluding acquisition-related costs below	\$ 1,482.9	\$ 1,409.8	\$ 73.1	5.2 %
% of total sales	42.3%	44.5 %		
Inventory purchase accounting adjustments	20.6	23.4	(2.8)	(12.0)%
% of total sales	0.6%	0.7 %		
Foreign currency loss (gain)	7.6	(4.2)	11.8	(281.0)%
% of total sales	0.2%	(0.1)%		
Acquisition integration costs	4.0	8.3	(4.3)	(51.8)%
% of total sales	0.1%	0.3 %		
Stock compensation expense	4.6	6.0	(1.4)	(23.3)%
% of total sales	0.1%	0.2 %		
Total cost of sales	<u>\$ 1,519.7</u>	<u>\$ 1,443.3</u>	<u>\$ 76.4</u>	<u>5.3 %</u>
% of total sales	<u>43.4%</u>	<u>45.5 %</u>		
Gross profit	<u>\$ 1,984.6</u>	<u>\$ 1,728.1</u>	<u>\$ 256.5</u>	<u>14.8 %</u>
Gross profit percentage	<u>56.6%</u>	<u>54.5 %</u>		

The increase in the dollar amount of cost of sales during the fiscal year ended September 30, 2017 was primarily due to increased volume associated with the sales from acquisitions and organic sales growth.

Gross profit as a percentage of sales increased by 2.1 percentage points to 56.6% for the fiscal year ended September 30, 2017 from 54.5% for the fiscal year ended September 30, 2016. The dollar amount of gross profit increased by \$256.5 million, or 14.8%, for the fiscal year ended September 30, 2017 compared to the comparable period last year due to the following items:

- Gross profit on the sales from the acquisitions indicated above (excluding acquisition-related costs) was approximately \$153.6 million for the fiscal year ended September 30, 2017, which represented gross profit of approximately 60% of the acquisition sales. The higher gross profit margin on the acquisition sales increase gross profit as a percentage of consolidated sales by approximately 1 percentage point.
- 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 \$106.2 million for the fiscal year ended September 30, 2017.

- Gross profit decreased \$11.8 million as foreign currency losses increased due to the unfavorable effect of changes in foreign currency exchange rates. This was partially offset by the reduction of the impact of inventory purchase accounting adjustments, acquisition integration costs and stock compensation expense charged to cost of sales of approximately \$8.5 million.

Selling and Administrative Expenses. Selling and administrative expenses increased by \$32.7 million to \$415.6 million, or 11.9% of sales, for the fiscal year ended September 30, 2017 from \$382.9 million, or 12.1% of sales, for the comparable period last year. Selling and administrative expenses and the related percentage of total sales for the fiscal years ended September 30, 2017 and 2016 were as follows (amounts in millions):

	Fiscal Years Ended		Change	% Change
	September 30, 2017	September 30, 2016		
Selling and administrative expenses—excluding costs below	\$ 368.1	\$ 314.5	\$ 53.6	17.0 %
% of total sales	10.5%	9.9%		
Stock compensation expense	41.0	42.4	(1.4)	(3.3)%
% of total sales	1.2%	1.3%		
Acquisition-related expenses	6.5	26.0	(19.5)	(75.0)%
% of total sales	0.2%	0.8%		
Total selling and administrative expenses	\$ 415.6	\$ 382.9	\$ 32.7	8.5 %
% of total sales	11.9%	12.1%		

The increase in the dollar amount of selling and administrative expenses during the fiscal year ended September 30, 2017 is primarily due to higher selling and administrative expenses relating to recent acquisitions of approximately \$47.7 million, which was approximately 19% of acquisition sales. The increase is partially offset by lower acquisition-related and stock compensation expense of \$19.5 million and \$1.4 million, respectively.

Amortization of Intangible Assets. Amortization of intangible assets increased to \$89.2 million for the fiscal year ended September 30, 2017 from \$77.4 million for the comparable period last year. The net increase of \$11.8 million was primarily due to the Third Quarter 2017 Acquisitions and full year amortization recorded from the fiscal 2016 acquisitions of Breeze-Eastern, DDC and Y&F/Tactair.

Refinancing Costs. Refinancing costs of \$39.8 million were recorded during the year ended September 30, 2017 representing debt issuance costs expensed in connection with the debt financing activity as disclosed in Note 11, "Debt," to the consolidated financial statements. Included within the \$39.8 million was approximately \$31.9 million in debt issuance costs and premium related to the repurchase of the 2021 Notes. Refinancing costs of \$15.8 million were recorded during the fiscal year ended September 30, 2016 representing debt issuance costs expensed in connection with the debt financing activity in June 2016.

Interest Expense-net. Interest expense-net includes interest on borrowings outstanding, amortization of debt issuance costs, original issue discount and premium, and revolving credit facility fees offset by interest income. Interest expense-net increased \$118.7 million, or 24.5%, to \$602.6 million for the fiscal year ended September 30, 2017 from \$483.9 million for the comparable 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 \$10,993 million for the fiscal year ended September 30, 2017 and approximately \$8,834 million for the fiscal year ended September 30, 2016. The weighted average cash interest rate was consistent at 5.3% during the fiscal years ended September 30, 2017 and 2016. The increase in weighted average level of borrowings was 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, the additional 2025 Notes offering of \$300 million in the second fiscal quarter of 2017, the additional \$100 million drawn on the trade receivable securitization facility in the fourth quarter of fiscal 2017 and the additional net debt financing of \$575 million in the fourth quarter of fiscal 2017. The weighted average interest rate for cash interest payments on total borrowings outstanding at September 30, 2017 was 5.2%.

Income Taxes. Income tax expense as a percentage of income before income taxes was approximately 24.9% for the fiscal year ended September 30, 2017 compared to 23.7% for the fiscal year ended September 30, 2016. The Company's effective tax rate for these periods was less than the Federal statutory tax rate due primarily to excess tax benefits on equity compensation, foreign earnings taxed at rates lower than the U.S. statutory rates, and the domestic manufacturing deduction. The increase in the effective tax rate for the fiscal year ended September 30, 2017 compared to the fiscal year ended September 30, 2016 was primarily due to foreign earnings taxed at higher rates versus the prior year foreign earnings.

Loss from Discontinued Operations. Loss from discontinued operations is comprised of the operating loss from the Schroth operations that were classified as held-for-sale as of September 30, 2017. The loss includes a \$32 million impairment charge to write-down Schroth's assets to fair value. More detailed information can be found in Note 22, "Discontinued Operations."

Net Income. Net income increased \$10.5 million, or 1.8%, to \$596.9 million for the fiscal year ended September 30, 2017 compared to net income of \$586.4 million for the fiscal year ended September 30, 2016, primarily as a result of the factors referred to above.

Earnings per Share. The basic and diluted earnings per share were \$7.88 for the fiscal year ended September 30, 2017 and \$10.39 per share for the fiscal year ended September 30, 2016. For the fiscal year ended September 30, 2017, basic and diluted earnings per share from continuing operations were \$8.45 and basic and diluted loss per share from discontinued operations were (\$0.57). Net income for the fiscal year ended September 30, 2017 of \$596.9 million was decreased by dividend equivalent payments of \$159.3 million resulting in net income available to common shareholders of \$437.6 million. Net income for the fiscal year ended September 30, 2016 of \$586.4 million was decreased by dividend equivalent payments of \$3.0 million resulting in net income available to common shareholders of \$583.4 million. The decrease in earnings per share of \$2.51 per share to \$7.88 per share is a result of the factors referred to above.

Business Segments

Segment Net Sales. Net sales by segment for the fiscal years ended September 30, 2017 and 2016 were as follows (amounts in millions):

	Fiscal Years Ended September 30					
	2017	% of Sales	2016	% of Sales	Change	% Change
Power & Control	\$ 1,927.2	55.0%	\$ 1,621.7	51.1%	\$ 305.5	18.8 %
Airframe	1,442.1	41.2%	1,447.9	45.7%	(5.8)	(0.4)%
Non-aviation	135.0	3.8%	101.8	3.2%	33.2	32.6 %
	<u>\$ 3,504.3</u>	<u>100.0%</u>	<u>\$ 3,171.4</u>	<u>100.0%</u>	<u>\$ 332.9</u>	<u>10.5 %</u>

Organic sales for the Power & Control segment increased \$70.8 million, or an increase of 4.4%, when compared to the fiscal year ended September 30, 2016. The organic sales increase resulted primarily from increases in commercial aftermarket sales (\$40.9 million, an increase of 7.5%), defense sales (\$28.2 million, an increase of 4.4%), and commercial OEM sales (\$1.0 million, an increase of 0.3%). Acquisition sales for the Power & Control segment totaled \$234.7 million, or an increase of 14.4%, resulting from the Third Quarter 2017 Acquisitions and the acquisitions of Tactair, DDC and Breeze-Eastern in fiscal year 2016.

Organic sales for the Airframe segment decreased \$5.8 million, or a decrease of 0.4%, when compared to the fiscal year ended September 30, 2016. The organic sales decrease resulted primarily from decreases in commercial aftermarket sales (\$6.1 million, a decrease of 1.0%), commercial OEM sales (\$5.3 million, a decrease of 1.1%) and non-aerospace sales (\$6.9 million, a decrease of 39.4%) offset by an increase in defense sales (\$12.5 million, an increase of 4.2%). There was no impact from acquisitions in the results of the Airframe segment.

Organic sales for the Non-aviation segment increased \$12.3 million, or an increase of 12.0%, when compared to the fiscal year ended September 30, 2016. The sales increase was primarily due to an increase in non-aerospace sales of \$9.9 million, an increase of 11.5%. Acquisition sales for the Non-aviation segment totaled \$20.9 million, or an increase of 20.6%, resulting from the acquisition of Y&F completed in fiscal year 2016.

EBITDA As Defined. EBITDA As Defined by segment for the fiscal years ended September 30, 2017 and 2016 were as follows (amounts in millions):

	Fiscal Years Ended September 30					
	2017	% of Segment Sales	2016	% of Segment Sales	Change	% Change
Power & Control	\$ 980.0	50.9%	\$ 787.4	48.6%	\$ 192.6	24.5%
Airframe	726.6	50.4%	709.9	49.0%	16.7	2.4%
Non-aviation	42.5	31.5%	28.2	27.7%	14.3	50.7%
	<u>\$ 1,749.1</u>	<u>49.9%</u>	<u>\$ 1,525.5</u>	<u>48.1%</u>	<u>\$ 223.6</u>	<u>14.7%</u>

Organic EBITDA As Defined for the Power & Control segment increased approximately \$88.7 million for the fiscal year ended September 30, 2017 compared to the fiscal year ended September 30, 2016. EBITDA As Defined from the Third Quarter 2017 Acquisitions and the acquisitions of Tactair, DDC and Breeze-Eastern in fiscal year 2016 was approximately \$103.9 million for the fiscal year ended September 30, 2017.

Organic EBITDA As Defined for the Airframe segment increased approximately \$16.7 million for the fiscal year ended September 30, 2017 compared to the fiscal year ended September 30, 2016. There was no impact from acquisitions in the results of the Airframe segment.

Organic EBITDA As Defined for the Non-aviation segment increased approximately \$7.4 million for the fiscal year ended September 30, 2017 compared to the fiscal year ended September 30, 2016. EBITDA As Defined from the acquisition of Y&F completed in fiscal year 2016 was approximately \$6.9 million.

Backlog

For information about our backlog, see Item 1. - “Business.”

Foreign Operations

Our direct sales to foreign customers were approximately \$1,355.1 million, \$1,318.9 million, and \$1,169.5 million for the fiscal years 2018, 2017 and 2016, respectively. Sales to foreign customers are subject to numerous additional risks, including foreign currency fluctuations, the impact of foreign government regulations, political uncertainties and differences in business practices. 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.

Inflation

Many of the Company’s raw materials and operating expenses are sensitive to the effects of inflation, which could result in changing operating costs. Furthermore, recently implemented changes to U.S. and other countries’ tariff and import/export regulations may have an unfavorable impact on raw materials pricing. The effects of inflation on the Company’s businesses during the fiscal years 2018, 2017 and 2016 were immaterial.

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. 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. The Company's debt leverage ratio, which is computed as total debt divided by EBITDA As Defined for the applicable twelve-month period, has varied widely during the Company's history, ranging from approximately 3.5 to 7.2. Our debt leverage ratio at September 30, 2018 was approximately 6.9.

If the Company has excess cash, it generally prioritizes allocating the excess cash in the following manner: (1) capital spending at existing businesses, (2) acquisitions of businesses, (3) payment of a special dividend and/or repurchases of our common stock and (4) prepayment of indebtedness or repurchase of debt. Whether the Company undertakes additional common stock repurchases or other aforementioned activities will depend on prevailing market conditions, the Company's liquidity requirements, contractual restrictions and other factors. The amounts involved may be material. In addition, the Company may issue additional debt if prevailing market conditions are favorable to doing so.

The Company's ability to make scheduled interest payments on, or to refinance, the Company's indebtedness, or to fund non-acquisition related capital expenditures and research and development efforts, will depend on the Company's ability to generate cash in the future. This is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond its control.

As a result of the additional debt financing during the fiscal year ended September 30, 2018, interest payments will increase going forward in accordance 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 from operating activities to meet our interest obligations and liquidity needs. We believe our cash from operations 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.

In connection with the merger agreement to acquire Esterline for approximately \$4 billion, the Company entered into a commitment letter for a senior secured term facility up to \$3.7 billion. The actual amount and timing of the new senior secured term facility is subject to the closing of the Esterline acquisition and the cash on hand at that time. The merger is anticipated to close in 2019, subject to approval of Esterline's shareholders, as well as other customary closing conditions, including the receipt of required regulatory approvals.

In the future, the Company may increase its borrowings in connection with acquisitions, if cash flow from operating activities becomes insufficient to fund current operations or for other short-term cash needs or for stock repurchases or dividends. Our future leverage will also be impacted by the then current conditions of the credit markets.

Operating Activities. The Company generated \$1,022.2 million of net cash from operating activities during fiscal 2018 compared to \$788.7 million during fiscal 2017. The net increase of \$233.5 million is primarily attributable to an increase in income from continuing operations of \$156.6 million (excludes the non-cash effects of the adjustments resulting from the Tax Cuts and Jobs Act of \$176.4 million). Changes in inventories, accounts payable and trade accounts receivable improved by approximately \$23.4 million compared to the prior year. The changes in inventories, accounts payable and trade accounts receivable are more fully described below.

The change in trade accounts receivable during fiscal 2018 was a use of \$43.8 million in cash compared to a use of cash of \$54.7 million in fiscal 2017, which is a reduction to the use of cash of \$10.9 million year over year. The reduction in the use of cash in fiscal 2018 compared to fiscal 2017 is attributable to the timing of sales and a higher rate of collections on trade accounts receivable.

The change in inventories was a use of cash of \$10.8 million in fiscal 2018 compared to a source of cash of \$5.1 million in fiscal 2017. The increase in inventories compared to prior year relates to the building up of inventories at certain reporting units during the fourth fiscal quarter of 2018 based on existing backlog for the first quarter of fiscal 2019.

The change in accounts payable during fiscal 2018 was a source of cash of \$18.1 million compared to a use of cash of \$10.4 million in fiscal 2017. The decrease in the use of cash was primarily attributable to the timing of payments to vendors.

The Company generated \$788.7 million of net cash from operating activities during fiscal 2017 compared to \$683.3 million during fiscal 2016. The net increase is primarily attributable to an increase in income from continuing operations and items adjusting

net income for non-cash expenses and income of \$38.8 million, and favorable changes in trade accounts receivable, inventories, and accounts payable of \$28.9 million, net.

Investing Activities. Net cash used in investing activities was \$683.6 million during fiscal 2018, primarily consisting of cash paid in connection with the acquisitions of Kirkhill, Extant, and Skandia of \$667.6 million and capital expenditures of \$73.3 million slightly offset by the cash proceeds received from the sale of Schroth of \$57.4 million. The Company expects its capital expenditures in fiscal year 2019 to be between \$85 million and \$100 million. The Company's capital expenditures incurred from year to year are primarily for projects that are consistent with our three core value-driven operating strategies (obtaining profitable new business, continually improve our cost structure and providing highly engineered value-added products to customers).

Net cash used in investing activities was \$287.0 million during fiscal 2017, primarily consisting of cash paid for the Third Quarter 2017 Acquisitions of \$106.3 million, the cash settlement of the Breeze-Eastern dissenting shares litigation of \$28.7 million, the acquisition of Schroth of \$79.7 million and capital expenditures of \$71.0 million.

Net cash used in investing activities was \$1,443.0 million during fiscal 2016, primarily consisting of the acquisitions of Breeze-Eastern, DDC, and Y&F/Tactair for a total of \$1,401.5 million and capital expenditures of \$44.0 million.

Financing Activities. Net cash used in financing activities during the fiscal year ended September 30, 2018 was \$1,085.6 million. The source of cash was primarily due to the net proceeds of \$678.6 million from the fiscal 2018 term loans activity and net proceeds of \$489.6 million from the issuance of the 6.875% 2026 Notes in the third quarter of fiscal 2018, along with \$57.8 million in proceeds from stock option exercises. Partially offsetting these sources of cash was \$56.1 million in dividend equivalent payments made in the first quarter of fiscal 2018.

Net cash used in financing activities during the fiscal year ended September 30, 2017 was \$1,443.7 million. The use of cash was primarily related to the aggregate payment of \$2,581.6 million for a \$24.00 per share special dividend declared and paid during the first quarter of fiscal 2017 and a \$22.00 per share special dividend declared and paid in the fourth quarter of fiscal 2017 and dividend equivalent payments. Also contributing to the use of cash was \$1,284.7 million in debt service payments on the existing term loans and the remaining principal on the tranche C term loans, redemption and related premium paid on the 2021 Notes aggregating to \$528.8 million and \$389.8 million related to treasury stock purchases under the Company's share repurchase program. Slightly offsetting the uses of cash were net proceeds from the 2017 term loans (tranche F and tranche G term loans) of \$2,937.7 million and the additional 2025 Notes offering of \$300.4 million, \$99.5 million in net proceeds from an additional A/R Securitization draw in the fourth quarter of fiscal 2017 and \$21.2 million in proceeds from stock option exercises.

Net cash provided by financing activities during the fiscal year ended September 30, 2016 was \$1,632.5 million, which primarily comprised of net proceeds from the fiscal 2016 term loans of \$1,711.5 million, net proceeds from our 2026 Notes of \$939.6 million, and \$30.1 million of cash proceeds from the exercise of stock options. These increases were partially offset by \$834.4 million of repayments on our existing term loans, \$207.8 million in treasury stock purchases under the Company's share repurchase programs, \$3.0 million in dividend equivalent payments and the impact from the adoption of ASU 2016-09 which resulted in the excess tax benefits related to share-based payment arrangements being classified within operating activities beginning in fiscal 2016.

Description of Senior Secured Term Loans and Indentures

Senior Secured Credit Facilities

TransDigm has \$7,599.9 million in fully drawn term loans (the "Term Loans Facility") and a \$600 million revolving credit facility. The Term Loans Facility consists of three tranches of term loans as follows (aggregate principal amount disclosed is as of September 30, 2018):

Term Loans Facility	Aggregate Principal	Maturity Date	Interest Rate
Tranche E	\$2,244 million	May 30, 2025	LIBO rate + 2.50%
Tranche F	\$3,560 million	June 9, 2023	LIBO rate + 2.50%
Tranche G	\$1,796 million	August 22, 2024	LIBO rate + 2.50%

The Term Loans Facility requires quarterly aggregate principal payments of \$19.1 million. The revolving commitments consist of two tranches which include up to \$99.4 million of multicurrency revolving commitments. At September 30, 2018, the Company had \$17.5 million in letters of credit outstanding and \$582.5 million in borrowings available under the revolving commitments. The interest rates per annum applicable to the loans under the Credit Agreement are, 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 not subject to a floor. For the fiscal year ended September 30, 2018, the applicable interest rates ranged from approximately 4.1% to 5.1% on the existing term loans. 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 consolidated financial statements included herein.

Recent Amendments to the Credit Agreement

On November 30, 2017, the Company entered into Amendment No. 4 to the Second Amended and Restated Credit Agreement (“Amendment No. 4”). Pursuant to Amendment No. 4, TransDigm, among other things, converted approximately \$798.2 million of existing tranche D term loans into additional tranche F term loans and decreased the margin applicable to the existing tranche E term loans and tranche F term loans to LIBO rate plus 2.75% per annum and also removed the LIBO rate floor of 0.75%. The terms and conditions (other than maturity date and pricing) that apply to the tranche F term loans are substantially the same as the terms and conditions that apply to the tranche D term loans immediately prior to Amendment No. 4.

On February 22, 2018, the Company entered into a refinancing facility agreement to the Second Amended and Restated Credit Agreement. TransDigm, among other things, incurred new tranche G term loans in an aggregate principal amount equal to \$1,810 million and repaid in full all of the existing tranche G term loans outstanding under the Second and Amended Restated Credit Agreement immediately prior to the refinancing facility agreement. The refinancing facility agreement also decreased the margin applicable to the tranche G term loans to LIBO rate plus 2.5% per annum. The terms and conditions that apply to the tranche G term loans, excluding pricing, are substantially the same as the terms and conditions that apply to the tranche G term loans immediately prior to the refinancing facility agreement.

On May 30, 2018, the Company entered into Amendment No. 5 to the Second Amended and Restated Credit Agreement (“Amendment No. 5”). Pursuant to Amendment No. 5, TransDigm, among other things, incurred new tranche E term loans in an aggregate principal amount equal to \$1,322 million, and repaid in full all of the existing tranche E term loans outstanding under the Second Amended and Restated Credit Agreement immediately prior to Amendment No. 5. The Company also incurred incremental tranche E term loans in an aggregate principal amount equal to \$933 million. The new tranche E term loans and incremental tranche E term loans mature on May 30, 2025. Amendment No. 5 also decreased the margin applicable to the new tranche E term loans to LIBO rate plus 2.5% per annum. The terms and conditions that apply to the tranche E term loans, other than the maturity date and margin, are substantially the same as the terms and conditions that apply to the tranche E term loans immediately prior to Amendment No. 5.

Additionally, pursuant to Amendment No. 5, the Company incurred new tranche F term loans in an aggregate principal amount equal to \$3,578 million, and repaid in full all of the existing tranche F term loans outstanding under the Second and Amended Restated Credit Agreement immediately prior to Amendment No. 5. Amendment No. 5 also decreased the margin applicable to the tranche F term loans to LIBO rate plus 2.5% per annum.

Under the terms of Amendment No. 5, the maturity date of our \$600 million revolving credit facility was extended to December 28, 2022. The revolving commitments consist of two tranches which includes up to \$99.4 million of multicurrency revolving commitments. The terms and conditions that apply to the revolving credit facility, other than the maturity date, are substantially the same as the terms and conditions that applied to the revolving credit facility immediately prior to Amendment No. 5.

Amendment No. 5 extended our ability to make certain additional restricted payments (including the ability of the Company to declare or pay dividends or repurchase stock) in an aggregate amount not to exceed \$1,500 million, so long as, among other conditions, the consolidated secured net debt ratio is no greater than 4.00 to 1.00 (in the case of share repurchases) or the consolidated net leverage ratio is no greater than 6.75 to 1.00 (in the case of dividends or other distributions), in each case, after giving pro forma effect to such transactions. If any portion of the \$1,500 million is not used for dividends or share repurchases prior to December 31, 2018, such amount (not to exceed \$500 million) may be used to repurchase stock at any time thereafter.

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%
6.875% 2026 Notes	\$500 million	May 15, 2026	6.875%
6.375% 2026 Notes	\$950 million	June 15, 2026	6.375%

The 2020 Notes, the 2022 Notes, the 2024 Notes, and the 6.375% 2026 Notes (the “TransDigm Inc. Notes”) were issued at a price of 100% of the principal amount. The initial \$450 million offering of the 2025 Notes (also considered to be part of the “TransDigm Inc. Notes”) were issued at a price of 100% of the principal amount and the subsequent \$300 million offering in the

second quarter ended of fiscal 2017 of 2025 Notes were issued at a price of 101.5% of the principal amount, resulting in gross proceeds of \$304.5 million. The 6.875% 2026 Notes (the "TransDigm UK Notes," and together with the TransDigm Inc. Notes, the "Notes," are further described below) offered in May 2018 were issued at a price of 99.24% of the principal amount, resulting in gross proceeds of \$496.2 million.

The Notes do not require principal payments prior to their maturity. Interest under the Notes is payable semi-annually. The Notes represent our unsecured obligations ranking subordinate to our senior debt, as defined in the applicable indentures.

The Notes are subordinated to all of our existing and future senior debt, rank equally with all of our existing and future senior subordinated debt and rank senior to all of our future debt that is expressly subordinated to the Notes. The TransDigm Inc. Notes are guaranteed on a senior subordinated unsecured basis by TD Group and TransDigm Inc.'s domestic restricted subsidiaries. The TransDigm UK Notes are guaranteed on a senior subordinated basis by TransDigm Inc., TD Group and TransDigm Inc.'s domestic restricted subsidiaries. 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 of the covenants contained in the Notes.

The TransDigm UK Notes were issued during the third quarter of fiscal 2018 by TransDigm UK, a wholly-owned, indirect subsidiary of TD Group, at a discount of 0.76%.

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 special dividends, transactions with affiliates, asset sales, acquisitions, mergers and consolidations, liens and encumbrances, and prepayments of certain other indebtedness.

The restrictive covenants included in the Credit Agreement are subject to amendments executed periodically. The most recent amendment that impacted the restrictive covenants contained in the Credit Agreement is Amendment No. 5. The restrictive covenants are described above in the *Recent Amendments to the Credit Agreement* section.

Under the terms of the Credit Agreement, TransDigm is entitled, on one or more occasions, to request additional term loans or additional revolving commitments to the extent that the existing or new lenders agree to provide such incremental term loans or additional revolving commitments 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 5.00 to 1.00, in each case, after giving effect to such incremental term loans or additional revolving commitments.

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 September 30, 2018.

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 September 30, 2018, the Company was in compliance with all of its debt covenants.

Trade Receivables Securitization

During fiscal 2014, the Company established a trade receivable securitization facility (the "Securitization Facility"). The Securitization Facility effectively increases the Company's borrowing capacity depending on the amount of the 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. On July 31, 2018, the Company amended

the Securitization Facility to increase the borrowing capacity to \$350 million and extend the maturity date to July 31, 2019. As of September 30, 2018, the Company has borrowed \$300 million under the Securitization Facility. The Securitization Facility is collateralized by substantially all of the Company's domestic operations' trade accounts receivable.

Stock Repurchase Program

On November 8, 2017, our Board of Directors, authorized a new stock repurchase program replacing the previous \$600 million program and permitting repurchases of our outstanding shares not to exceed \$650 million in the aggregate, subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes. No repurchases were made under the program during the fiscal year ended September 30, 2018.

Contractual Obligations

The following is a summary of contractual cash obligations as of September 30, 2018 (in millions):

	2019	2020	2021	2022	2023	2024 and thereafter	Total
Senior Secured Term Loans ⁽¹⁾	\$ 76.4	\$ 76.4	\$ 76.4	\$ 76.4	\$ 3,457.4	\$ 3,836.9	\$ 7,599.9
2020 Notes	—	—	550.0	—	—	—	550.0
2022 Notes	—	—	—	1,150.0	—	—	1,150.0
2024 Notes	—	—	—	—	—	1,200.0	1,200.0
2025 Notes	—	—	—	—	—	750.0	750.0
6.875% 2026 Notes	—	—	—	—	—	500.0	500.0
6.375% 2026 Notes	—	—	—	—	—	950.0	950.0
Securitization Facility	300.0	—	—	—	—	—	300.0
Scheduled Interest Payments ⁽²⁾	715.5	727.8	696.8	685.0	586.8	680.1	4,092.0
Operating Leases	19.3	16.3	13.9	12.2	9.7	27.1	98.5
Purchase Obligations	371.8	43.1	30.4	17.4	21.2	—	483.9
Total Contractual Cash Obligations	\$ 1,483.0	\$ 863.6	\$ 1,367.5	\$ 1,941.0	\$ 4,075.1	\$ 7,944.1	\$ 17,674.3

(1) The tranche E term loans mature in May 2025, the tranche F term loans mature in June 2023, and the tranche G term loans mature in August 2024. The term loans require quarterly principal payments totaling \$19.1 million.

(2) Assumes that the variable interest rate on our tranche E, tranche F and tranche G borrowings under our Senior Secured Term Loans range from approximately 4.74% to 5.66% based on anticipated movements in the LIBO rate. In addition, interest payments include the impact of the existing interest rate swap and cap agreements described in Note 20, "Derivatives and Hedging Activities" to the consolidated financial statements herein.

In addition to the contractual obligations set forth above, the Company incurs capital expenditures for the purpose of maintaining and replacing existing equipment and facilities and, from time to time, for facility expansion. Capital expenditures totaled approximately \$73.3 million, \$71.0 million, and \$44.0 million during fiscal years 2018, 2017, and fiscal 2016, respectively. The Company expects its capital expenditures in fiscal year 2019 to be between \$85 million and \$100 million.

Off-Balance Sheet Arrangements

The Company utilizes letters of credit to back certain payment and performance obligations. Letters of credit are subject to limits based on amounts outstanding under the Company's revolving credit facility.

New Accounting Standards

For information about new accounting standards, see Note 4, "Recent Accounting Pronouncements," to our consolidated financial statements included herein.

Additional Disclosure Required by Indentures

Separate financial statements of TransDigm Inc. are not presented because TransDigm Inc.'s 2020 Notes, 2022 Notes, 2024 Notes, 2025 Notes and 6.375% 2026 Notes are fully and unconditionally guaranteed on a senior subordinated basis by TD Group, TransDigm UK and all of TransDigm Inc.'s Domestic Restricted Subsidiaries and because TD Group has no significant operations or assets separate from its investment in TransDigm Inc.

Separate financial statements of TransDigm UK are not presented because TransDigm UK's 6.875% 2026 Notes, issued in May 2018, are fully and unconditionally guaranteed on a senior subordinated basis by TD Group, TransDigm Inc. and all of TransDigm Inc.'s Domestic Restricted Subsidiaries.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Our main exposure to market risk relates to interest rates. Our financial instruments that are subject to interest rate risk principally include fixed-rate and floating-rate long-term debt. At September 30, 2018, we had borrowings under our term loans of approximately \$7,600 million that were subject to interest rate risk. Borrowings under our term loans bear interest, at our option, at a rate equal to either an alternate base rate or an adjusted LIBOR for a one-, two-, three- or six-month (or to the extent available to each lender, nine- or twelve-month) interest period chosen by us, in each case, plus an applicable margin percentage. Accordingly, the Company's cash flows and earnings will be exposed to the market risk of interest rate changes resulting from variable rate borrowings under our term loans. The Company's objective is to maintain an allocation of approximately 75% fixed rate and 25% variable rate debt thereby limiting its exposure to changes in near-term interest rates. The effect of a hypothetical one percentage point increase in interest rates would increase the annual interest costs under our term loans by approximately \$76 million based on the amount of outstanding borrowings at September 30, 2018. The weighted average interest rate on the \$7,600 million of borrowings under our term loans on September 30, 2018 was 4.5%.

Interest rate swaps and caps used to hedge and offset, respectively, the variable interest rates on the credit facility are described in Note 20, "Derivatives and Hedging Activities," to our consolidated financial statements included herein. We do not hold or issue derivative instruments for speculative purposes.

For information about the fair value of the aggregate principal amount of borrowings under our term loans and the fair value of the Notes, see Note 19, "Fair Value Measurements," to our consolidated financial statements included herein.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item is contained on pages F-1 through F-44 of this Report.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of September 30, 2018, TD Group carried out an evaluation, under the supervision and with the participation of TD Group's management, including its President, Chief Executive Officer and Director (Principal Executive Officer) and Chief Financial Officer (Principal Financial Officer), of the effectiveness of the design and operation of TD Group's disclosure controls and procedures. Based upon that evaluation, the President, Chief Executive Officer and Director 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 Exchange Act 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 President, Chief Executive Officer and Director 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.

Management's Report on Internal Control Over Financial Reporting

The management of TD Group is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Exchange Act Rule 13a-15(f). Using criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (COSO) in Internal Control-Integrated Framework, TransDigm's management assessed the effectiveness of the Company's internal control over financial reporting as of September 30, 2018. Based on our assessment, management concluded that the Company's internal control over financial reporting was effective as of September 30, 2018.

During fiscal 2018, we completed the acquisitions of Kirkhill, Extant and Skandia. The results of operations are included in our consolidated financial statements from the date of acquisition. As permitted by the Securities and Exchange Commission rules and regulations, we have excluded these acquisitions from our assessment of the effectiveness of our internal control over financial reporting as of September 30, 2018. Total assets as of September 30, 2018, net sales and income from continuing operations before income taxes for the fiscal year ended September 30, 2018 for these fiscal 2018 acquisitions constituted approximately 6%, 2% and 2%, respectively, of each of these key measures as reported in our consolidated financial statements.

The effectiveness of the Company's internal control over financial reporting as of September 30, 2018 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report, which is included elsewhere in this Annual Report on Form 10-K and is incorporated herein by reference.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Company's internal control over financial reporting that occurred during the fourth quarter of fiscal 2018 that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of
TransDigm Group Incorporated

Opinion on Internal Control over Financial Reporting

We have audited TransDigm Group Incorporated's ("the Company") internal control over financial reporting as of September 30, 2018, based on criteria established in Internal Control- Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2018, based on the COSO criteria.

As indicated in the accompanying Management's Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Kirkhill, Extant and Skandia, which are included in the 2018 consolidated financial statements of TransDigm Group Incorporated and constituted 6% of total assets as of September 30, 2018, 2% of revenues and 2% of pre-tax income for the year then ended. Our audit of internal control over financial reporting of TransDigm Group Incorporated also did not include an evaluation of the internal control over financial reporting of Kirkhill, Extant and Skandia.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of September 30, 2018 and 2017, the related consolidated statements of income, comprehensive income, cash flows and changes in stockholders' deficit for each of the three years in the period ended September 30, 2018 and the related notes and financial statement schedule listed in the Index at Item 15(a) of the Company and our report dated November 9, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying management's report on internal control over financial reporting in Item 9A of the Form 10-K. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Cleveland, Ohio
November 9, 2018

ITEM 9B. OTHER INFORMATION

Appointment of Officer

The Company has, effective November 10, 2018, appointed Sarah Wynne, age 44, as Chief Accounting Officer of the Company. Ms. Wynne was most recently a Group Controller of the Company (since 2015). Prior to that, Ms. Wynne was Controller at Aero Fluid Products, a TransDigm operating company (2009 -2015) and held accounting positions with increasing responsibility.

Employment Agreement with Named Executive Officer

On November 6, 2018, the Company entered into a Third Amended and Restated Employment Agreement with Robert Henderson whereby Mr. Henderson will continue to serve as Vice Chairman of the Company. Mr. Henderson's prior employment agreement was scheduled to terminate on December 31, 2018. It is intended that Mr. Henderson will be responsible for planning for the integration of the Esterline acquisition and, upon closing, integrating the Esterline business. The Employment Agreement replaced Mr. Henderson's Second Amended and Restated Employment Agreement dated January 25, 2018. The term of the Employment Agreement will expire on December 31, 2021, unless earlier terminated by the Company or Mr. Henderson; provided, however, that if the Esterline acquisition has not been completed by December 31, 2019, the Employment Agreement will terminate. The Employment Agreement contemplates that Mr. Henderson will spend full time working for the Company. This is a change from the prior agreement, which contemplated that Mr. Henderson would work approximately three-quarters time.

Mr. Henderson will receive equity compensation in lieu of cash compensation for salary and bonus on similar terms to those contained in the employment agreement of Mr. Howley, the Company's Executive Chairman. Under the terms of the Employment Agreement, Mr. Henderson will receive \$10,000 in cash to cover his employee co-premiums for health benefits and related taxes and, for 2019 salary, a grant of options calculated on a Black Scholes basis with a 37.5% risk premium equal to \$750,000. In addition, Mr. Henderson is entitled to participate in the Company's annual cash incentive plan with a target bonus of 80%, which will be paid in options calculated in the same manner as his salary. Mr. Henderson may give notice one time during the term of the Employment Agreement if he wishes to discontinue his receipt of equity compensation effective with his bonus or as of the following year. Other than the manner in calculating the option grant, which was a fixed number in Mr. Henderson's prior employment agreement, these provisions did not change materially from the prior employment agreement.

The options granted in lieu of salary and bonus will vest 40% immediately and, to the extent the performance criteria is met, 40% at completion of the first fiscal year after the grant and 20% after the second fiscal year after the date of grant. These options will include provisions with regard to post-employment vesting upon termination of employment by reason of death, disability, good reason, without cause or retirement (each as defined in the Employment Agreement). More specifically, if Mr. Henderson's employment terminates for the aforementioned reasons after the first fiscal year following the date of grant but on or after the second fiscal year end following the date of grant, 40% of the remaining unvested options may continue to vest in accordance with their terms; if Mr. Henderson's employment terminates for the aforementioned reasons after the second fiscal year end following the date of grant but on or prior to the third fiscal year end following the date of grant, 80% of the remaining unvested options may continue to vest in accordance with their terms; and if Mr. Henderson's employment terminates for any of the aforementioned reasons after the third fiscal year end following the date of grant, 100% of the remaining unvested options may continue to vest in accordance with their terms. Mr. Henderson is entitled to participate in the Company's stock option plan and the other employee benefit plans, programs and arrangements that the Company may maintain from time to time for its senior officers. These provisions did not change from the prior employment agreement.

The Employment Agreement provides that if Mr. Henderson is terminated for any reason, he will be entitled to payment of any accrued but unpaid base salary through the termination date, any unreimbursed expenses, an amount for accrued but unused sick and vacation days, and benefits owing to him under the benefit plans and programs sponsored by the Company. In addition, if Mr. Henderson's employment is terminated without cause, if he terminates his employment for customary good reasons, or if his employment terminates due to his death or disability, the Company will pay him, in substantially equal installments over a 12-month period, an amount equal to one times his salary plus one times the greater of the all of the bonuses paid or payable to him for the prior fiscal year (excluding any extraordinary bonus) or the target bonuses for the year in which his employment terminates, determined in accordance with the Company's bonus program(s) if any, plus 18 times the difference of the monthly COBRA continuation coverage rate and the monthly cost of coverage to Mr. Henderson as of the date of termination. These provisions did not change from the prior employment agreement.

The Employment Agreement also includes non-competition, non-solicitation provisions, confidentiality and indemnity consistent with Mr. Henderson's prior agreement. These provisions did not change from the prior employment agreement.

The foregoing description of the terms of the Employment Agreement is qualified in its entirety by the full text of the Third Amended and Restated Employment Agreement, a copy of which is filed herewith.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE**Directors and Executive Officers**

Information regarding TD Group’s directors will be set forth under the caption “Proposal One: Election of Directors” in our Proxy Statement, which is incorporated herein by reference. The following table sets forth certain information concerning TD Group’s executive officers:

Name	Age	Position
W. Nicholas Howley	66	Executive Chairman of the Board of Directors
Kevin Stein	52	President, Chief Executive Officer and Director
Robert S. Henderson	62	Vice Chairman
Jorge L. Valladares III	44	Chief Operating Officer—Power and Control
Michael Lisman	35	Chief Financial Officer
James Skulina	59	Senior Vice President of Finance
Bernt G. Iversen II	61	Executive Vice President—Mergers & Acquisitions and Business Development
Halle Terrion	50	General Counsel, Chief Compliance Officer & Secretary

Mr. Howley was appointed Executive Chairman of the Board of Directors of TD Group in April 2018. Mr. Howley previously served as Chairman of the Board of Directors of TD Group from July 2003 to April 2018. He served as Chief Executive Officer of TD Group from December 2005 to April 2018 and of TransDigm Inc. from December 2001 to March 2018. Mr. Howley served as President of TD Group from July 2003 through December 2015, as Chief Operating Officer of TransDigm Inc. from December 1998 through December 2001 and as President of TransDigm Inc. from December 1998 through September 2005.

Mr. Stein was appointed President, Chief Executive Officer and Director in April 2018. Prior to that, Mr. Stein served as President and Chief Operating Officer from January 2017 through March 2018 and Chief Operating Officer—Power from October 2014 to December 2016. Prior to joining TransDigm, Mr. Stein served as Executive Vice President and President of the Structurals division of Precision Castparts Corp. from November 2011 to October 2014 and Executive Vice President and President of the Fasteners division of Precision Castparts Corp. from January 2009 through November 2011.

Mr. Henderson was appointed Vice Chairman in January 2017. Prior to that, Mr. Henderson served as Chief Operating Officer—Airframe from October 2014 to December 2016. Mr. Henderson also previously served as Executive Vice President from December 2005 to October 2014, and as President of the AdelWiggins Group, a division of TransDigm Inc., from August 1999 to April 2008.

Mr. Valladares was appointed Chief Operating Officer—Power in June 2018. Prior to that, Mr. Valladares served as Executive Vice President from October 2013 to May 2018, as President of AvtechTye, Inc. (formerly Avtech Corporation), a wholly-owned subsidiary of TransDigm Inc., from August 2009 to September 2013, and as President of AdelWiggins Group, a division of TransDigm Inc., from April 2008 to July 2009.

Mr. Lisman was appointed Chief Financial Officer in July 2018. Prior to that, Mr. Lisman served as Vice President—Mergers and Acquisitions from January 2018 through June 2018, Business Unit Manager for the Air & Fuel Valves business unit at Aero Fluid Products, a wholly-owned subsidiary of TransDigm Inc., from January 2017 to January 2018 and Director of Mergers and Acquisitions of the Company from November 2015 to January 2017. Prior to joining TransDigm, Mr. Lisman was a Vice President at Warburg Pincus from 2011 to 2015.

Mr. Skulina was appointed Senior Vice President of Finance in July 2018. Prior to that, Mr. Skulina served as Interim Chief Financial Officer from January 2018 to June 2018, Executive Vice President from January 2012 to December 2017, as President of the Aero Fluid Products division of AeroControlex Group, Inc., a wholly-owned subsidiary of TransDigm Inc., from September 2009 to December 2011, and as Controller of TransDigm Inc., from August 2007 to August 2009.

Mr. Iversen was appointed Executive Vice President—Mergers & Acquisitions and Business Development in May 2012. Prior to that, Mr. Iversen served as Executive Vice President of TD Group from December 6, 2010 through May 2012 and as President of Champion Aerospace LLC, a wholly-owned subsidiary of TransDigm Inc., from June 2006 to December 2010.

Ms. Terrion was appointed General Counsel and Chief Compliance Office in March 2012 and Secretary in May 2015. Prior to that, Ms. Terrion was a partner at BakerHostetler LLP.

Section 16(a) Beneficial Ownership Reporting Compliance

The information regarding compliance with Section 16 of the Securities Exchange Act of 1934 will be set forth under the caption entitled “Section 16(a) Beneficial Ownership Reporting Compliance” in our Proxy Statement, which is incorporated herein by reference.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics, which applies to all of our directors, officers, and employees and a Code of Ethics for Senior Financial Officers which includes additional ethical obligations for our senior financial management (which includes our chief executive officer and president, chief financial officer, senior vice president of finance, division presidents, controllers, treasurer, and chief internal auditor). Please refer to the information set forth under the caption “Corporate Governance—Codes of Ethics & Whistleblower Policy” in our Proxy Statement, which is incorporated herein by reference. Our Code of Business Conduct and Ethics and our Code of Ethics for Senior Financial Officers is available on our website at www.transdigm.com. Any person may receive a copy without charge by writing to us at TransDigm Group Incorporated, 1301 East 9th Street, Suite 3000, Cleveland, Ohio 44114. We intend to disclose on our website any amendment to, or waiver from, a provision of our Code of Business Conduct and Ethics that applies to directors and executive officers and that is required to be disclosed pursuant to the rules of the Securities and Exchange Commission.

Nominations of Directors

The procedure by which stockholders may recommend nominees to our Board of Directors will be set forth under the caption “Corporate Governance—Board Committees—Nominating and Corporate Governance Committee” in our Proxy Statement, which is incorporated herein by reference.

Audit Committee

The information regarding the audit committee of our Board of Directors and audit committee financial experts will be set forth under the caption “Corporate Governance—Board Committees—Audit Committee” in our Proxy Statement, which is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item will be set forth under the captions “Executive Compensation”, “Compensation of Directors”, “Compensation Committee Interlocks and Insider Participation” and “Compensation Committee Report” in our Proxy Statement, which is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information regarding security ownership of certain beneficial owners and management will be set forth under the caption “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement, which is incorporated herein by reference.

Equity Compensation Plan Information

<u>Plan category</u>	<u>Number of Securities to Be Issued upon Exercise of Outstanding Options, Warrants and Rights</u> (a)	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights</u> (b)	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))</u> (c)
Equity compensation plans approved by security holders ⁽¹⁾	6,069,234 ⁽²⁾	\$ 194.75	2,876,222 ⁽³⁾

(1) Includes information related to the 2003 stock option plan, the 2006 stock incentive plan and the 2014 stock option plan.

(2) This amount represents 77,829, 3,878,127 and 2,113,278 shares subject to outstanding stock options under our 2003 stock option plan, 2006 stock incentive plan and 2014 stock option plan, respectively. No further grants may be made under our 2003 stock option plan and 2006 stock incentive plan, although outstanding stock options continue in force in accordance with their terms.

(3) This amount represents remaining shares available for award under our 2014 stock option plan.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item will be set forth under the captions entitled “Certain Relationships and Related Transactions,” “Compensation of Directors,” and “Independence of Directors” in our Proxy Statement, which is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item will be set forth under the caption “Principal Accounting Fees and Services” in our Proxy Statement, which is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents Filed with Report

(a) (1) Financial Statements

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Report of Independent Registered Public Accounting Firm	F-1
Consolidated Balance Sheets as of September 30, 2018 and 2017	F-2
Consolidated Statements of Income for Fiscal Years Ended September 30, 2018, 2017 and 2016	F-3
Consolidated Statements of Comprehensive Income for Fiscal Years Ended September 30, 2018, 2017 and 2016	F-4
Consolidated Statements of Changes in Stockholders' Deficit for Fiscal Years Ended September 30, 2018, 2017 and 2016	F-5
Consolidated Statements of Cash Flows for Fiscal Years Ended September 30, 2018, 2017 and 2016	F-6
Notes to Consolidated Financial Statements for Fiscal Years Ended September 30, 2018, 2017 and 2016	pages F-7 to F-43

(a) (2) Financial Statement Schedules

Valuation and Qualifying Accounts for the Fiscal Years Ended September 30, 2018, 2017 and 2016	F-44
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(a) (3) Exhibits

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
2.2	Agreement and Plan of Merger dated as of May 23, 2016 among TransDigm Inc., Thunder Merger Sub Inc., ILC Holdings, Inc. and Behrman Capital PEP L.P.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 26, 2016 (File No. 001-32833)
2.3	Agreement and Plan of Merger dated as of October 9, 2018, by and among Esterline Technologies Corporation, TransDigm Group Incorporated and Thunderbird Merger Sub Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 11, 2018 (File No. 001-32833)
2.4	First Amendment to Agreement and Plan of Merger dated as of October 10, 2018, by and among Esterline Technologies Corporation, TransDigm Group Incorporated and Thunderbird Merger Sub Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 11, 2018 (File No. 001-32833)
3.1	Second Amended and Restated Certificate of Incorporation, filed April 28, 2014, of TransDigm Group Incorporated	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed April 28, 2014 (File No. 001-32833)
3.2	Third Amended and Restated Bylaws of TransDigm Group Incorporated	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed January 30, 2018 (File No. 001-32833)
3.3	Certificate of Incorporation, filed July 2, 1993, of NovaDigm Acquisition, Inc. (now known as TransDigm Inc.)	Incorporated by reference to TransDigm Inc. and TransDigm Holding Company's Form S-4 filed January 29, 1999 (File No. 333-71397)
3.4	Certificate of Amendment, filed July 22, 1993, of the Certificate of Incorporation of NovaDigm Acquisition, Inc. (now known as TransDigm Inc.)	Incorporated by reference to TransDigm Inc. and TransDigm Holding Company's Form S-4 filed January 29, 1999 (File No. 333-71397)
3.5	Bylaws of NovaDigm Acquisition, Inc. (now known as TransDigm Inc.)	Incorporated by reference to TransDigm Inc. and TransDigm Holding Company's Form S-4 filed January 29, 1999 (File No. 333-71397)
3.6	Certificate of Incorporation, filed July 10, 2009, of Acme Aerospace Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2009 (File No. 001-32833)
3.7	Bylaws of Acme Aerospace Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2009 (File No. 001-32833)
3.8	Articles of Incorporation, filed July 30, 1986, of ARP Acquisition Corporation (now known as Adams Rite Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed April 23, 1999 (File No. 333-71397)
3.9	Certificate of Amendment, filed September 12, 1986, of the Articles of Incorporation of ARP Acquisition Corporation (now known as Adams Rite Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed April 23, 1999 (File No. 333-71397)
3.10	Certificate of Amendment, filed January 27, 1992, of the Articles of Incorporation of Adams Rite Products, Inc. (now known as Adams Rite Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed April 23, 1999 (File No. 333-71397)
3.11	Certificate of Amendment, filed December 31, 1992, of the Articles of Incorporation of Adams Rite Products, Inc. (now known as Adams Rite Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed April 23, 1999 (File No. 333-71397)
3.12	Certificate of Amendment, filed August 11, 1997, of the Articles of Incorporation of Adams Rite Sabre International, Inc. (now known as Adams Rite Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed April 23, 1999 (File No. 333-71397)
3.13	Amended and Restated Bylaws of Adams Rite Aerospace, Inc.	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed April 23, 1999 (File No. 333-71397)
3.14	Certificate of Incorporation, filed June 18, 2007, of AeroControlex Group, Inc.	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.15	Bylaws of AeroControlex Group, Inc.	Incorporated by reference to TransDigm Inc. and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.16	Certificate of Formation, filed September 25, 2013, of Aerosonic LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.17	Limited Liability Company Agreement of Aerosonic LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.18	Certificate of Incorporation, filed November 13, 2009, of Airborne Acquisition, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.19	Bylaws of Airborne Acquisition, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.20	Amended and Restated Certificate of Incorporation, filed January 25, 2010, of HDT International Holdings, Inc. (now known as Airborne Global, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.21	Certificate of Amendment to Certificate of Incorporation, filed February 24, 2010, of HDT International Holdings, Inc. (now known as Airborne Global, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.22	Certificate of Amendment to Certificate of Incorporation, filed December 10, 2013, of HDT Global, Inc. (now known as Airborne Global, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.23	Bylaws of HDT International Holdings, Inc. (now known as Airborne Global, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.24	Certificate of Incorporation, filed November 13, 2009, of Airborne Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.25	Bylaws of Airborne Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.26	Certificate of Incorporation, filed September 1, 1995, of Wardle Storeys Inc. (now known as Airborne Systems NA Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.27	Certificate of Amendment to Certificate of Incorporation, filed May 28, 2002, of Wardle Storeys Inc. (now known as Airborne Systems NA Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.28	Bylaws of Airborne Systems NA Inc., as amended	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.29	Certificate of Incorporation, filed April 23, 2007, of Airborne Systems North America Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.30	Bylaws of Airborne Systems North America Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.31	Certificate of Incorporation, filed April 25, 1989, of Irvin Industries (Del), Inc. (now known as Airborne Systems North America of CA Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.32	Certificate of Amendment to Certificate of Incorporation, filed June 2, 1989, of Irvin Industries (Del), Inc. (now known as Airborne Systems North America of CA Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.33	Certificate of Amendment to Certificate of Incorporation, filed April 30, 1996, of Irvin Industries, Inc. (now known as Airborne Systems North America of CA Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.34	Certificate of Amendment to Certificate of Incorporation, filed April 23, 1997, of Irvin Aerospace Inc. (now known as Airborne Systems North America of CA Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.35	Bylaws of Airborne Systems North America of CA Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.36	Certificate of Incorporation, Profit, filed October 28, 1994, of Wardle Storeys (Parachutes) Inc. (now known as Airborne Systems North America of NJ Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.37	Certificate of Merger, filed February 9, 1995, of Para-Flite Inc. with and into Wardle Storeys (Parachutes) Inc. (now known as Airborne Systems North America of NJ Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.38	Certificate of Amendment to Certificate of Incorporation, filed April 23, 2007, of Para-Flite Inc. (now known as Airborne Systems North America of NJ Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.39	Certificate of Correction to Certificate of Incorporation, filed June 27, 2007, of Airborne Systems North America of NJ Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.40	Bylaws of Airborne Systems North America of NJ Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.41	Certificate of Incorporation, filed May 8, 1985, of Am-Safe, Inc. (now known as AmSafe, Inc.)	Incorporated by reference to Form TransDigm Group Incorporated's 10-Q filed May 9, 2012 (File No. 001-32833)
3.42	Certificate of Amendment of Certificate of Incorporation, filed May 19, 2005, of Am-Safe, Inc. (now known as AmSafe, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.43	By-Laws of Am-Safe, Inc. (now known as AmSafe, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.44	Certificate of Incorporation, filed October 16, 2007, of AmSafe Global Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.45	Amended and Restated By-Laws of AmSafe Global Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.46	Restated Certificate of Incorporation, filed July 10, 1967, of Arkwin Industries, Inc.	Incorporated by reference to Amendment No. 3 to TransDigm Inc. and TransDigm Group Incorporated's Form S-4 filed June 27, 2013 (File No. 333-186494)
3.47	Certificate of Amendment, filed November 4, 1981, of Arkwin Industries, Inc.	Incorporated by reference to Amendment No. 3 to TransDigm Inc. and TransDigm Group Incorporated's Form S-4 filed June 27, 2013 (File No. 333-186494)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.48	Certificate of Amendment, filed June 11, 1999, of Arkwin Industries, Inc.	Incorporated by reference to Amendment No. 3 to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed June 27, 2013 (File No. 333-186494)
3.49	Bylaws of Arkwin Industries, Inc.	Incorporated by reference to Amendment No. 3 to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed June 27, 2013 (File No. 333-186494)
3.50	Amended and Restated Certificate of Incorporation of Aviation Technologies, Inc.	Filed Herewith
3.51	Bylaws of Wings Holdings, Inc. (now known as Aviation Technologies, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.52	Certificate of Formation, effective June 29, 2007, of Avionic Instruments LLC	Filed Herewith
3.53	Limited Liability Company Agreement of Avionic Instruments LLC	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No.333-144366)
3.54	Articles of Incorporation, filed December 29, 1992, of Avionics Specialties, Inc.	Filed Herewith
3.55	Bylaws of Avionics Specialties, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.56	Articles of Incorporation, filed October 3, 1963, of Avtech Corporation (now known as AvtechTye, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.57	Articles of Amendment of Articles of Incorporation, filed March 30, 1984, of Avtech Corporation (now known as AvtechTye, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.58	Articles of Amendment of Articles of Incorporation, filed April 17, 1989, of Avtech Corporation (now known as AvtechTye, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.59	Articles of Amendment of Articles of Incorporation, filed July 17, 1998, of Avtech Corporation (now known as AvtechTye, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.60	Articles of Amendment of Articles of Incorporation, filed May 20, 2003, of Avtech Corporation (now known as Avtech Tye, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed July 6, 2007 (File No. 333-144366)
3.61	Articles of Amendment of Articles of Incorporation, filed May 2, 2012, of AvtechTye, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 16, 2012 (File No. 001-32833)
3.62	Bylaws of Avtech Corporation (now known as AvtechTye, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.63	Certificate of Incorporation, filed October 24, 1977, of Transformer Technology Corporation (now known as Beta Transformer Technology Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.64	Certificate of Amendment of Certificate of Incorporation, filed December 1, 1977, of Transformer Technology Corporation (now known as Beta Transformer Technology Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.65	By-laws of Transformer Technology Corporation (now known as Beta Transformer Technology Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.66	Amended and Restated Limited Liability Company Agreement, filed July 7, 2016, of Beta Transformer Technology LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.67	Limited Liability Company Certificate of Formation of Breeze-Eastern LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 11, 2016 (File No. 001-32833)
3.68	Limited Liability Company Agreement of Breeze-Eastern LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 11, 2016 (File No. 001-32833)
3.69	Articles of Incorporation, filed February 6, 1998, of Air Carrier Acquisition Corp. (now known as Bridport-Air Carrier, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.70	Articles of Amendment, filed February 23, 1998, of Air Carrier Acquisition Corp. (now known as Bridport-Air Carrier, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.71	Articles of Amendment, filed December 14, 1999, of Bridport-Air Carrier, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.72	Amended and Restated By-Laws of Bridport-Air Carrier, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.73	Certificate of Incorporation, filed May 9, 2000, of Erie Acquisition Corp. (now known as Bridport Erie Aviation, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.74	Certificate of Amendment of Certificate of Incorporation, filed May 30, 2000, of Erie Acquisition Corp. (now known as Bridport Erie Aviation, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.75	Certificate of Amendment of Certificate of Incorporation, filed June 19, 2000, of Bridport Erie Aviation, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.76	Amended and Restated By-Laws of Erie Acquisition Corp. (now known as Bridport Erie Aviation, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.77	Certificate of Incorporation, filed July 2, 2004, of Bridport Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.78	Amended and Restated By-Laws of Bridport Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.79	Certificate of Incorporation filed August 6, 2007, of Bruce Aerospace, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 21, 2007 (File No. 001-32833)
3.80	Bylaws of Bruce Aerospace, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 21, 2007 (File No. 001-32833)
3.81	Articles of Organization of CDA InterCorp LLC	Filed Herewith
3.82	Operating Agreement of CDA InterCorp LLC	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.83	Certificate of Formation, filed September 30, 2009, of CEF Industries, LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 24, 2009 (File No. 001-32833)
3.84	Limited Liability Company Agreement of CEF Industries, LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 24, 2009 (File No. 001-32833)
3.85	Certificate of Formation, effective June 30, 2007, of Champion Aerospace LLC	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.86	Limited Liability Company Agreement of Champion Aerospace LLC	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed July 6, 2007 (File No. 333-144366)
3.87	Certificate of Incorporation, filed October 23, 1970, of ILC Data Devices Corporation (now known as Data Device Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.88	Certificate of Amendment of Certificate of Incorporation, filed April 23, 1999, of ILC Data Devices Corporation (now known as Data Device Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.89	Certificate of Amendment of Certificate of Incorporation, filed July 14, 2014, of Data Device Corporation	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.90	Bylaws of ILC Data Devices Corporation (now known as Data Device Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.91	Certificate of Incorporation, filed November 20, 2009, of Dukes Aerospace, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed December 4, 2009 (File No. 001-32833)
3.92	Bylaws of Dukes Aerospace, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed December 4, 2009 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.93	Certificate of Formation, filed February 29, 2000, of Western Sky Industries, LLC (now known as Electromech Technologies LLC)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.94	Certificate of Amendment, filed December 18, 2013, of Western Sky Industries, LLC (now known as Electromech Technologies LLC)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
3.95	Fourth Amended and Restated Limited Liability Agreement of Electromech Technologies LLC	File Herewith
3.96	Articles of Organization, as amended, of HarcoSemco LLC	Filed Herewith
3.97	First Amended and Restated Limited Liability Company Agreement of HarcoSemco LLC	Filed Herewith
3.98	Articles of Incorporation, filed May 10, 1957, of Hartwell Aviation Supply Company (now known as Hartwell Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.99	Certificate of Amendment, filed June 9, 1960, of Articles of Incorporation of Hartwell Aviation Supply Company (now known as Hartwell Corporation)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.100	Certification of Amendment, filed October 23, 1987, of Articles of Incorporation of Hartwell Corporation	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.101	Certificate of Amendment, filed April 9, 1997, of Articles of Incorporation of Hartwell Corporation	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.102	By-laws of Hartwell Corporation	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.103	Amended and Restated Certificate of Incorporation of ILC Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.104	Bylaws, as amended, of ILC Holdings, Inc.	Filed Herewith
3.105	Certificate of Formation, filed January 26, 2007, of Johnson Liverpool LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.106	Amended and Restated Limited Liability Company Agreement of Johnson Liverpool LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
3.107	Certificate of Incorporation, filed March 28, 1994, of MPT Acquisition Corp. (now known as MarathonNorco Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed January 29, 1999 (File No. 333-71397)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.108	Certificate of Amendment, filed May 18, 1994, of the Certificate of Incorporation of MPT Acquisition Corp. (now known as MarathonNorco Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed January 29, 1999 (File No. 333-71397)
3.109	Certificate of Amendment, filed May 24, 1994, of the Certificate of Incorporation of MPT Acquisition Corp. (now known as MarathonNorco Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed January 29, 1999 (File No. 333-71397)
3.110	Certificate of Amendment, filed August 28, 2003, of the Certificate of Incorporation of Marathon Power Technology Company (now known as MarathonNorco Aerospace, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 28, 2006 (File No. 001-32833)
3.111	Bylaws of MPT Acquisition Corp. (now known as MarathonNorco Aerospace, Inc.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Holding Company's Form S-4 filed January 29, 1999 (File No. 333-71397)
3.112	Certificate of Incorporation, filed April 13, 2007, of McKechnie Aerospace DE, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.113	Bylaws of McKechnie Aerospace DE, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.114	Certificate of Incorporation, filed April 25, 2007, of McKechnie Aerospace Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.115	Bylaws of McKechnie Aerospace Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.116	Certificate of Formation, filed May 11, 2005, of Melrose US 3 LLC (now known as McKechnie Aerospace US LLC)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.117	Certificate of Amendment, filed May 11, 2007, to Certificate of Formation of Melrose US 3 LLC (now known as McKechnie Aerospace US LLC)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.118	Limited Liability Company Agreement of McKechnie Aerospace US LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2011 (File No. 001-32833)
3.119	Restated Certificate of Incorporation, filed June 27, 2014, of North Hills Signal Processing Corp.	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed May 10, 2017 (File No. 333-217850)
3.120	Bylaws of Porta Systems Corp. (now known as North Hills Signal Processing Corp.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed May 10, 2017 (File No. 333-217850)
3.121	Certificate of Incorporation, as amended, of Porta Systems Overseas Corp (now known as North Hills Signal Processing Overseas Corp)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed May 10, 2017 (File No. 333-217850)
3.122	By-laws of Porta Systems Overseas Corp (now known as North Hills Signal Processing Overseas Corp.)	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4 filed May 10, 2017 (File No. 333-217850)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.123	Certificate of Incorporation, filed April 28, 2015, of PX Acquisition Co. (now known as Pexco Aerospace, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2015 (File No. 001-32833)
3.124	Certificate of Incorporation, filed April 28, 2015, of PX Acquisition Co. (now known as Pexco Aerospace, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2015 (File No. 001-32833)
3.125	Bylaws of PX Acquisition Co. (now known as Pexco Aerospace, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2015 (File No. 001-32833)
3.126	Articles of Incorporation, filed October 3, 1956, of Pneudraulics, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
3.127	Certificate of Amendment, filed December 9, 1970, of Articles of Incorporation of Pneudraulics, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
3.128	Restated Bylaws of PneuDrraulics, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
3.129	Limited Liability Company Certificate of Formation, filed May 30, 2007, of Schneller LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2012 (File No. 001-32833)
3.130	Amended and Restated Limited Liability Company Agreement, dated August 31, 2011, of Schneller LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2012 (File No. 001-32833)
3.131	Certificate of Incorporation of Semco Instruments, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed September 7, 2010 (File No. 001-32833)
3.132	Certificate of Amendment to Certificate of Incorporation, filed October 17, 2012, of Semco Instruments, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 16, 2012 (File No. 001-32833)
3.133	Amended and Restated Bylaws of Semco Instruments, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed September 7, 2010 (File No. 001-32833)
3.134	Certificate of Incorporation, filed September 16, 1994, of Am-Safe Commercial Products, Inc. (now known as Shield Restraint Systems, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.135	Certificate of Amendment of Certificate of Incorporation, filed May 19, 2005, of AmSafe Commercial Products, Inc. (now known as Shield Restraint Systems, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)
3.136	Certificate of Amendment of Certificate of Incorporation, filed August 27, 2014 of AmSafe Commercial Products, Inc. (now known as Shield Restraint Systems, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 14, 2014 (File No. 001-32833)
3.137	By Laws of Am-Safe Commercial Products, Inc. (now known as Shield Restraint Systems, Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 9, 2012 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.138	Certificate of Incorporation, filed December 22, 2004, of Skurka Aerospace Inc.	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed October 11, 2006 (File No. 333-137937)
3.139	Bylaws, as amended, of Skurka Aerospace Inc.	Filed Herewith
3.140	Certificate of Incorporation, filed August 22, 1986, of Tactair Fluid Controls, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K, filed November 15, 2016 (File No. 001-32833)
3.141	Certificate of Amendment, filed June 8, 1998, of Certificate of Incorporation of Tactair Fluid Controls, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K, filed November 15, 2016 (File No. 001-32833)
3.142	By-laws, as amended, of Tactair Fluid Controls, Inc.	Filed Herewith
3.143	Certificate of Formation, filed March 27, 2015, of Telair International LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed May 5, 2015 (File No. 001-32833)
3.144	Limited Liability Company Agreement of Telair International LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed May 5, 2015 (File No. 001-32833)
3.145	Certificate of Formation, filed February 23, 2015, of Telair US LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed May 5, 2015 (File No. 001-32833)
3.146	Limited Liability Company Agreement of Telair US LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed May 5, 2015 (File No. 001-32833)
3.147	Articles of Incorporation, filed August 6, 1999, of Texas Rotronics, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed February 8, 2011 (File No. 001-32833)
3.148	Bylaws, as amended, of Texas Rotronics, Inc.	Filed Herewith
3.149	Certificate of Formation, effective June 30, 2007, of Transicoil LLC	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed July 6, 2007 (File No. 333-144366)
3.150	Limited Liability Company Agreement of Transicoil LLC	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed July 6, 2007 (File No. 333-144366)
3.151	Certificate of Formation, filed June 13, 2013, of Whippany Actuation Systems, LLC	Incorporated by reference to Amendment No. 3 to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4/A, filed June 27, 2013 (File No. 333-186494)
3.152	Limited Liability Company Agreement of Whippany Actuation Systems, LLC	Incorporated by reference to Amendment No. 3 to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4/A, filed June 27, 2013 (File No. 333-186494)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.153	Restated Certificate of Incorporation of Young & Franklin Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-K, filed November 15, 2016 (File No. 001-32833)
3.154	By-laws, as amended, of Young & Franklin Inc.	Filed Herewith
3.155	Certificate of Formation, filed May 30, 2013, of Beta Transformer Technology LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-K, filed November 15, 2016 (File No. 001-32833)
3.156	Amended and Restated Bylaws of Kirkhill Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed May 4, 2018 (File No. 001-32833)
3.157	Certificate of Incorporation, filed February 21, 2018, of KH Acquisition I Co. (now known as Kirkhill Inc.)	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed May 4, 2018 (File No. 001-32833)
3.158	Certificate of Incorporation of TransDigm UK Holdings plc	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.159	Articles of Association of TransDigm UK Holdings plc	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.160	Amended and Restated Certificate of Incorporation of Extant Components Group Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.161	Bylaws of Extant Components Group Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.162	Certificate of Incorporation of Extant Components Group Intermediate, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.163	Bylaws of Extant Components Group Intermediate, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.164	Articles of Organization of Symetrics Industries, LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.165	Amended and Restated Limited Liability Company Agreement of Symetrics Industries, LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.166	Articles of Organization of Symetrics Technology Group, LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
3.167	Amended and Restated Limited Liability Company Agreement of Symetrics Technology Group, LLC	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
3.168	Certificate of Incorporation of TEAC Aerospace Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833).
3.169	Bylaws of TEAC Aerospace Holdings, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833).
3.170	Certificate of Incorporation of TEAC Aerospace Technologies, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833).
3.171	Bylaws of TEAC Aerospace Technologies, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833).
3.172	Articles of Incorporation, filed January 2, 1992, of Skandia, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833).
3.173	Amended and Restated Bylaws of Skandia, Inc.	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833).
4.1	Form of Stock Certificate	Incorporated by reference to Amendment No. 3 to TransDigm Group Incorporated's Form S-1 filed March 13, 2006 (File No. 333-130483).
4.2	Indenture, dated as of October 15, 2012, among TransDigm Inc., as issuer, TransDigm Group Incorporated, as a guarantor, the subsidiary guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to TransDigm Inc.'s 5.50% Senior Subordinated Notes due 2020	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 15, 2012 (File No. 001-32833).
4.3	First Supplemental Indenture, dated as of June 5, 2013, 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	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 11, 2013 (File No. 001-32833).
4.4	Second Supplemental Indenture, dated as of June 26, 2013, 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	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed July 1, 2013 (File No. 001-32833).
4.5	Third Supplemental Indenture, dated as of December 19, 2013, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833).
4.6	Fourth Supplemental Indenture, dated as of April 9, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 5, 2015 (File No. 001-32833).
4.7	Fifth Supplemental Indenture, dated as of June 12, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2015 (File No. 001-32833).

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
4.8	Sixth Supplemental Indenture, dated as of August 28, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
4.9	Seventh Supplemental Indenture, dated as of April 1, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.10	Eighth Supplemental Indenture, dated as of July 8, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.11	Ninth Supplemental Indenture, dated as of October 28, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.12	Tenth Supplemental Indenture, dated as of March 31, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 10, 2017 (File No. 001-32833)
4.13	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	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed May 10, 2017 (File No. 333-217850)
4.14	Twelfth Supplemental Indenture, dated as of March 30, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.15	Thirteenth Supplemental Indenture, dated as of May 8, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.16	Fourteenth Supplemental Indenture, dated as of May 22, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.17	Fifteenth Supplemental Indenture, dated as of July 31, 2018, 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
4.18	Indenture, dated as of June 4, 2014, 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, relating to TransDigm Inc.'s 6.00% Senior Subordinated Notes due 2022.	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 6, 2014 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
4.19	First Supplemental Indenture, dated as of April 9, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 5, 2015 (File No. 001-32833)
4.20	Second Supplemental Indenture, dated as of June 12, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2015 (File No. 001-32833)
4.21	Third Supplemental Indenture, dated as of August 28, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
4.22	Fourth Supplemental Indenture, dated as of April 1, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.23	Fifth Supplemental Indenture, dated as of July 8, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.24	Sixth Supplemental Indenture, dated as of October 28, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.25	Seventh Supplemental Indenture, dated as of March 31, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 10, 2017 (File No. 001-32833)
4.26	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	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed May 10, 2017 (File No. 333-217850)
4.27	Ninth Supplemental Indenture, dated as of March 30, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.28	Tenth Supplemental Indenture, dated as of May 8, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.29	Eleventh Supplemental Indenture, dated as of May 22, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
4.30	Twelfth Supplemental Indenture, dated as of July 31, 2018, 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
4.31	Indenture, dated as of June 4, 2014, 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, relating to TransDigm Inc.'s 6.50% Senior Subordinated Notes due 2024	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 6, 2014 (File No. 001-32833)
4.32	First Supplemental Indenture, dated as of April 9, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 5, 2015 (File No. 001-32833)
4.33	Second Supplemental Indenture, dated as of June 12, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2015 (File No. 001-32833)
4.34	Third Supplemental Indenture, dated as of August 28, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
4.35	Fourth Supplemental Indenture, dated as of April 1, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.36	Fifth Supplemental Indenture, dated as of July 8, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.37	Sixth Supplemental Indenture, dated as of October 28, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.38	Seventh Supplemental Indenture, dated as of March 31, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed May 10, 2017 (File No. 001-32833)
4.39	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	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed May 10, 2017 (File No. 333-217850)
4.40	Ninth Supplemental Indenture, dated as of March 30, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
4.41	Tenth Supplemental Indenture, dated as of May 8, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.42	Eleventh Supplemental Indenture, dated as of May 22, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.43	Twelfth Supplemental Indenture, dated as of July 31, 2018, 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
4.44	Indenture, dated as of May 14, 2015, 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, relating to TransDigm Inc.'s 6.50% Senior Subordinated Notes due 2025	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 19, 2015 (File No. 001-32833)
4.45	First Supplemental Indenture, dated as of June 12, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 5, 2015 (File No. 001-32833)
4.46	Second Supplemental Indenture, dated as of August 28, 2015, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
4.47	Third Supplemental Indenture, dated as of April 1, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.48	Fourth Supplemental Indenture, dated as of July 8, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.49	Fifth Supplemental Indenture, dated as of October 28, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.50	Sixth Supplemental Indenture, dated as of March 31, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 10, 2017 (File No. 001-32833)
4.51	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	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed May 10, 2017 (File No. 333-217850)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
4.52	Eight Supplemental Indenture, dated as of March 30, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.53	Ninth Supplemental Indenture, dated as of May 8, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.54	Tenth Supplemental Indenture, dated as of May 22, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.55	Eleventh Supplemental Indenture, dated as of July 31, 2018, 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
4.56	Indenture, dated as of June 9, 2016, among TransDigm Inc., as issuer, Transdigm Group Incorporated, as guarantor, the subsidiary guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee, relating to TransDigm Inc.'s 6.375% Senior Subordinated Notes due 2026	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 14, 2016 (File No. 001-32833)
4.57	First Supplemental Indenture, dated as of July 8, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.58	Second Supplemental Indenture, dated as of October 28, 2016, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 15, 2016 (File No. 001-32833)
4.59	Third Supplemental Indenture, dated as of March 31, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 10, 2017 (File No. 001-32833)
4.60	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	Incorporated by reference to TransDigm Inc.'s and TransDigm Group Incorporated's Form S-4, filed May 10, 2017 (File No. 333-217850)
4.61	Fifth Supplemental Indenture, dated as of March 30, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q, filed August 8, 2018 (File No. 001-32833)
4.62	Sixth Supplemental Indenture, dated as of May 8, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.63	Seventh Supplemental Indenture, dated as of May 22, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
4.64	Eighth Supplemental Indenture, dated as of July 31, 2018, 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
4.65	Indenture, dated as of May 8, 2018, among TransDigm UK Holdings plc, as issuer, Transdigm Group Incorporated and TransDigm Inc., as guarantors, the subsidiary guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee, relating to TransDigm UK Holdings plc's 6.875% Senior Subordinated Notes due 2026	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 14, 2018 (File No. 001-32833)
4.66	First Supplemental Indenture, dated as of May 22, 2018, among TransDigm UK Holdings plc, as issuer, Transdigm Group Incorporated and TransDigm Inc., as guarantors, the subsidiary guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
4.67	Second Supplemental Indenture, dated as of July 31, 2018, among TransDigm UK Holdings plc, as issuer, TransDigm Group Incorporated and TransDigm Inc., as guarantors, the subsidiary guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee	Filed Herewith
4.68	Form of TransDigm Inc.'s 5.50% Senior Subordinated Notes due 2020	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 15, 2012 (File No. 001-32833)
4.69	Form of TransDigm Inc.'s 6.00% Senior Subordinated Notes due 2022	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 6, 2014 (File No. 001-32833)
4.70	Form of TransDigm Inc.'s 6.50% Senior Subordinated Notes due 2024	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 6, 2014 (File No. 001-32833)
4.71	Form of TransDigm Inc.'s 6.50% Senior Subordinated Notes due 2025	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 19, 2015 (File No. 001-32833)
4.72	Form of TransDigm Inc.'s 6.375% Senior Subordinated Notes due 2026	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 14, 2016 (File No. 001-32833)
4.73	Form of TransDigm UK Holdings plc's 6.875% Senior Subordinated Notes due 2026	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 14, 2018 (File No. 001-32833)
4.74	Form of Notation of Guarantee of TransDigm Inc.'s 5.50% Senior Subordinated Notes due 2020	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 16, 2012 (File No. 001-32833)
4.75	Form of Notation of Guarantee of 6.00% Senior Subordinated Notes due 2022	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 6, 2014 (File No. 001-32833)
4.76	Form of Notation of Guarantee of 6.50% Senior Subordinated Notes due 2024	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 6, 2014 (File No. 001-32833)
4.77	Form of Notation of Guarantee of 6.50% Senior Subordinated Notes due 2025	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 19, 2015 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
4.78	Form of Notation of Guarantee of 6.375% Senior Subordinated Notes due 2026	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 14, 2016 (File No. 001-32833)
4.79	Form of Notation of Guarantee of TransDigm UK Holdings plc's 6.875% Senior Subordinated Notes due 2026	Incorporated by reference to TransDigm Group Incorporated's Form 8-K, filed May 14, 2018 (File No. 001-32833)
4.80	Registration Rights Agreement, dated as of May 8, 2018, among TransDigm UK Holdings plc, TransDigm Inc., TransDigm Group Incorporated, the subsidiary guarantors party thereto and Citigroup Global Markets Inc., Credit Suisse Securities (USA) LLC, Morgan Stanley & Co. LLC and RBC Capital Markets, LLC, as representatives of the initial purchasers	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 14, 2018 (File No. 001-32833)
10.1	Fourth Amended and Restated Employment Agreement, dated December 10, 2015, between TransDigm Group Incorporated and W. Nicholas Howley*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed December 10, 2015 (File No. 001-32833)
10.2	Fifth Amended and Restated Employment Agreement, dated April 26, 2018, between TransDigm Group Incorporated and W. Nicholas Howley*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed April 30, 2018 (File No. 001-32833)
10.3	Employment Agreement, dated July 27, 2018, between TransDigm Group Incorporated and Michael Lisman*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed July 30, 2018 (File No. 001-32833)
10.4	Second Amended and Restated Employment Agreement, dated April 26, 2018, between TransDigm Group Incorporated and Kevin Stein*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed April 30, 2018 (File No. 001-32833)
10.5	Second Amended and Restated Employment Agreement, dated January 25, 2018, between TransDigm Group Incorporated and Robert Henderson*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed January 30, 2018 (File No. 001-32833)
10.6	Third Amended and Restated Employment Agreement, dated November 6, 2018, between TransDigm Group Incorporated and Robert Henderson*	Filed Herewith
10.7	Employment Agreement, dated October 23, 2013, between TransDigm Group Incorporated and Jorge Valladares*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 29, 2013 (File No. 001-32833)
10.8	Employment Agreement, Dated February 24, 2011, between TransDigm Group Incorporated and Bernt Iversen*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed February 25, 2011 (File No. 001-32833)
10.9	Employment Agreement, dated April 20, 2012, between TransDigm Group Incorporated and James Skulina*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed April 24, 2012 (File No. 001-32833)
10.10	Employment Agreement, dated April 27, 2015, between TransDigm Group Incorporated and Terrance Paradie	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed April 28, 2015
10.11	First Amendment to Employment Agreement, dated April 20, 2012, between TransDigm Group Incorporated and Bernt Iversen*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed April 24, 2012 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
10.12	Form of Amendment to Employment Agreement between TransDigm Group Incorporated and Bernt Iversen*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 25, 2012 (File No. 001-32833)
10.13	Form of Amendment to Employment Agreement, dated October 2015, between TransDigm Group Incorporated and each of Terrance Paradie, Bernt Iversen, James Skulina, and Jorge Valladares*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 27, 2015 (File No. 001-32833)
10.14	Fourth Amendment to Employment Agreement, dated November 11, 2016, between TransDigm Group Incorporated and Bernt Iversen*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed November 15, 2016 (File No. 001-32833)
10.15	Second Amendment to Employment Agreement, dated November 11, 2016, between TransDigm Group Incorporated and Terrance Paradie*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed November 15, 2016 (File No. 001-32833)
10.16	Second Amendment to Employment Agreement, dated July 30, 2018, between TransDigm Group Incorporated and Jorge Valladares*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed August 3, 2018 (File No. 001-32833)
10.17	Separation Agreement, dated January 2, 2018, between TransDigm Group Incorporated and Terrance Paradie*	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed May 4, 2018 (File No. 001-32833)
10.18	TransDigm Group Incorporated Fourth Amended and Restated 2003 Stock Option Plan*	Incorporated by reference to Amendment No. 1 to TransDigm Inc. and TransDigm Group Incorporated's Form S-4 filed November 7, 2006 (File No. 333-137937)
10.19	Amendment No. 1 to TransDigm Group Incorporated Fourth Amended and Restated 2003 Stock Option Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 21, 2007 (File No. 001-32833)
10.20	Amendment No. 2 to TransDigm Group Incorporated Fourth Amended and Restated Stock Option Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 7, 2008 (File No. 001-32833)
10.21	Amendment No. 3 to TransDigm Group Incorporated Fourth Amended and Restated Stock Option Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed April 28, 2009 (File No. 001-32833)
10.22	TransDigm Group Incorporated 2006 Stock Incentive Plan*	Incorporated by reference to Amendment No. 3 to TransDigm Group Incorporated's Form S-1 filed March 13, 2006 (File No. 333-130483)
10.23	Amendment No. 1, dated October 20, 2006, to the TransDigm Group Incorporated 2006 Stock Incentive Plan*	Incorporated by reference to Amendment No. 1 to TransDigm Inc. and TransDigm Group Incorporated's Form S-4 filed November 7, 2006 (File No. 333-137937)
10.24	Second Amendment to TransDigm Group Incorporated 2006 Stock Incentive Plan, dated April 25, 2008*	Incorporated by reference to TransDigm Group Incorporated's Schedule 14A filed June 6, 2008 (File No. 001-32833)
10.25	TransDigm Group Incorporated 2014 Stock Option Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 6, 2014 (File No. 001-32833)
10.26	Director Share Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 10, 2016 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
10.27	Form of Option Agreements for options granted in fiscal 2014*	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 14, 2014 (File No. 001-32833)
10.28	Form of Option Agreements for options granted in fiscal 2015*	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed January 30, 2015 (File No. 001-32833)
10.29	Form of Option Agreements for options granted in fiscal 2016*	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 10, 2016 (File No. 001-32833)
10.30	Form of Stock Option Agreement for options awarded in fiscal 2017*	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 8, 2017 (File No. 001-32833)
10.31	Form of Stock Option Agreement for options awarded in fiscal 2018*	Filed Herewith
10.32	Fourth Amended and Restated TransDigm Group Incorporated 2003 Stock Option Plan Dividend Equivalent Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed August 2, 2013 (File No. 001-32833)
10.33	Third Amended and Restated TransDigm Group Incorporated 2006 Stock Incentive Plan Dividend Equivalent Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed August 2, 2013 (File No. 001-32833)
10.34	TransDigm Group Incorporated 2014 Stock Option Plan Dividend Equivalent Plan*	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 28, 2014 (File No. 001-32833)
10.35	Amendment and Restatement Agreement, and Second Amendment and Restated Credit Agreement, dated as of June 4, 2014, among TransDigm Inc., TransDigm Group Incorporated, the subsidiaries of TransDigm Inc. from time to time party thereto, the lenders party thereto, as lenders, and Credit Suisse AG, as administrative agent	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed June 6, 2014 (File No. 001-32833)
10.36	Incremental Assumption and Refinancing Facility Agreement, dated as of May 14, 2015, among TransDigm Inc., TransDigm Group Incorporated, the subsidiary guarantors party thereto, Credit Suisse AG, as administrative agent and collateral agent, and the other agents and lenders named therein	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 19, 2015 (File No. 001-32833)
10.37	Loan Modification Agreement, dated as of May 20, 2015, among TransDigm Inc., TransDigm Group Incorporated, the subsidiary guarantors party thereto, Credit Suisse AG, as administrative agent and collateral agent, and the other agents and lenders party thereto	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 27, 2015 (File No. 001-32833)
10.38	Incremental Revolving Credit Assumption and Refinancing Facility Agreement, dated as of May 20, 2015, among TransDigm Inc., TransDigm Group Incorporated, the subsidiary guarantors party thereto, Credit Suisse AG, as administrative agent and collateral agent and the other agents and lenders party thereto	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 27, 2015 (File No. 001-32833)
10.39	Incremental Term Loan Assumption Agreement dated October 14, 2016 among TransDigm Inc., TransDigm Group Incorporated, the subsidiaries of TransDigm Inc. party thereto, the lenders party thereto and Credit Suisse AG, as administrative and collateral agent	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed October 14, 2016 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
10.40	Amendment No. 2 to the Second Amended and Restated Credit Agreement, dated as of March 6, 2017, among TransDigm Inc., as borrower, TransDigm Group Incorporated, as guarantor, the subsidiary guarantors party thereto, Credit Suisse AG, as administrative agent and collateral agent, and the other agents and lenders named therein	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed March 8, 2017 (File No. 001-32833)
10.41	Amendment No. 3 to the Second Amended and Restated Credit Agreement, dated as of August 22, 2017, among TransDigm Inc., as borrower, TransDigm Group Incorporated, as guarantor, the subsidiary guarantors party thereto, Credit Suisse AG, as administrative agent and collateral agent, and the other agents and lenders named therein	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed August 24, 2017 (File No. 001-32833)
10.42	Amendment No.4 to the Second Amended and Restated Credit Agreement, dated as of November 30, 2017, among TransDigm Inc., as borrower, TransDigm Group Incorporated, as guarantor, the subsidiary guarantors party thereto, Credit Suisse AG, as administrative agent and collateral agent, and the other agents and lenders named therein	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed December 6, 2017 (File No. 001-32833)
10.43	Refinancing Facility Agreement to the Second Amended and Restated Credit Agreement, dated as of February 22, 2018, among TransDigm Inc., as borrower, TransDigm Group Incorporated, as guarantor, the subsidiary guarantors party thereto, Credit Suisse AG, as administrative agent and collateral agent, and the other agents and lenders named therein	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed February 22, 2018 (File No. 001-32833)
10.44	Amendment No. 5, Incremental Assumption Agreement and Refinancing Facility Agreement, dated as of May 30, 2018, relating to the Second Amended and Restated Credit Agreement, dated as of June 4, 2014, among TransDigm Inc., TransDigm Group Incorporated, each subsidiary of TransDigm Inc. party thereto, the lenders party thereto, and Credit Suisse AG, as administrative agent and collateral agent for the lenders	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed May 31, 2018 (File No. 001-32833)
10.45	Guarantee and Collateral Agreement, dated as of June 23, 2006, as amended and restated as of December 6, 2010, as further amended and restated as of February 14, 2011 and February 28, 2013, among TransDigm Inc., TransDigm Group Incorporated, the subsidiaries of TransDigm Inc. named therein and Credit Suisse AG as administrative agent and collateral agent	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed March 6, 2013 (File No. 001-32833)
10.46	Receivables Purchase Agreement, dated October 21, 2013, among TransDigm Receivables LLC, TransDigm Inc., PNC Bank, National Association as a Purchaser and a Purchaser Agent, the various other Purchasers and Purchaser Agents from time to time party thereto, and PNC National Association as Administrator	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed February 5, 2014 (File No. 001-32833)
10.47	First Amendment to the Receivables Purchase Agreement, dated March 25, 2014, among TransDigm Receivables LLC, TransDigm Inc., PNC Bank, National Association as a Purchaser, Purchaser Agent for its Purchaser Group and as Administrator	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
10.48	Second Amendment to the Receivables Purchase Agreement, dated August 8, 2014, among TransDigm Receivables LLC, TransDigm Inc., PNC Bank, National Association, as a Committed Purchaser, as a Purchaser Agent for its Purchaser Group and Administrator, and Credit Agricole Corporate and Investment Bank, as a Committed Purchaser and as a Purchase Agent for its Purchaser Group	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)

Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
10.49	Third Amendment to the Receivables Purchase Agreement, dated March 20, 2015, among TransDigm Receivables LLC, TransDigm Inc., PNC Bank, National Association, as a Committed Purchaser, as a Purchaser Agent for its Purchaser Group and Administrator, Atlantic Asset Securitization LLC, as a Conduit Purchaser, and Credit Agricole Corporate and Investment Bank, as a Committed Purchaser and as a Purchase Agent for its and Atlantic's Purchaser Group	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2015 (File No. 001-32833)
10.50	Fourth Amendment to the Receivables Purchase Agreement dated as of August 4, 2015, among TransDigm Receivables LLC, TransDigm Inc., PNC Bank, National Association, as a Committed Purchaser, as a Purchaser Agent for its Purchaser Group and Administrator, Atlantic Asset Securitization LLC, as a Conduit Purchaser, and Credit Agricole Corporate and Investment Bank, as a Committed Purchaser and as a Purchaser Agent for its and Atlantic's Purchaser Group	Incorporated by reference to TransDigm Group Incorporated's Form 8-K filed August 7, 2015 (File No. 001-32833)
10.51	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	Incorporated by reference to TransDigm Group Incorporated's Form 10-K filed November 13, 2017 (File No. 001-32833)
10.52	Tenth Amendment to the Receivables Purchase Agreement dated as of July 31, 2018, 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	Incorporated by reference to TransDigm Group Incorporated's Form 10-Q filed August 8, 2018 (File No. 001-32833)
21.1	Subsidiaries of TransDigm Group Incorporated	Filed Herewith
23.1	Consent of Independent Registered Public Accounting Firm	Filed Herewith
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	Filed Herewith
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	Filed Herewith
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	Filed Herewith

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Exhibit No.	Description	Filed Herewith or Incorporated by Reference From
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	Filed Herewith
101	Financial Statements and Notes to Consolidated Financial Statements formatted in XBRL.	Filed Herewith

* Indicates management contract or compensatory plan contract or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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 on November 9, 2018.

TRANSDIGM GROUP INCORPORATED

By: _____ /s/ Michael Lisman
 Name: Michael Lisman
 Title: **Chief Financial Officer**

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and as of the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
_____ /s/ Kevin Stein Kevin Stein	President, Chief Executive Officer and Director (Principal Executive Officer)	November 9, 2018
_____ /s/ Michael Lisman Michael Lisman	Chief Financial Officer (Principal Financial Officer)	November 9, 2018
_____ /s/ James Skulina James Skulina	Senior Vice President of Finance (Principal Accounting Officer)	November 9, 2018
_____ /s/ W. Nicholas Howley W. Nicholas Howley	Executive Chairman	November 9, 2018
_____ /s/ David Barr David Barr	Director	November 9, 2018
_____ /s/ William Dries William Dries	Director	November 9, 2018
_____ /s/ Mervin Dunn Mervin Dunn	Director	November 9, 2018
_____ /s/ Michael Graff Michael Graff	Director	November 9, 2018
_____ /s/ Sean P. Hennessy Sean P. Hennessy	Director	November 9, 2018
_____ /s/ Raymond F. Laubenthal Raymond F. Laubenthal	Director	November 9, 2018
_____ /s/ Gary E. McCullough Gary E. McCullough	Director	November 9, 2018
_____ /s/ Douglas Peacock Douglas Peacock	Director	November 9, 2018
_____ /s/ Michele Santana Michele Santana	Director	November 9, 2018
_____ /s/ Robert J. Small Robert J. Small	Director	November 9, 2018
_____ /s/ John Staer John Staer	Director	November 9, 2018

TRANSDIGM GROUP INCORPORATED AND SUBSIDIARIES
ANNUAL REPORT ON FORM 10-K:
FISCAL YEAR ENDED SEPTEMBER 30, 2018
ITEM 8 AND ITEM 15(a) (1)
FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
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Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of
TransDigm Group

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of TransDigm Group Incorporated (“the Company”) as of September 30, 2018 and 2017, the related consolidated statements of income, comprehensive income, changes in stockholders’ deficit, and cash flows for each of the three years in the period ended September 30, 2018, and the related notes and financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company at September 30, 2018 and 2017, and the consolidated results of its operations and its cash flows for each of the three years in the period ended September 30, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of September 30, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated November 9, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2004.

Cleveland, Ohio
November 9, 2018

TRANSDIGM GROUP INCORPORATED
CONSOLIDATED BALANCE SHEETS
AS OF SEPTEMBER 30, 2018 AND 2017
(Amounts in thousands, except share amounts)

	2018	2017
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 2,073,017	\$ 650,561
Trade accounts receivable—Net	704,310	636,127
Inventories—Net	805,292	730,681
Assets held-for-sale	—	77,500
Prepaid expenses and other	74,668	38,683
Total current assets	3,657,287	2,133,552
PROPERTY, PLANT AND EQUIPMENT—Net	388,333	324,924
GOODWILL	6,223,290	5,745,338
OTHER INTANGIBLE ASSETS—Net	1,788,404	1,717,862
DERIVATIVE ASSETS	97,286	15,809
OTHER	42,867	38,176
TOTAL ASSETS	\$ 12,197,467	\$ 9,975,661
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES:		
Current portion of long-term debt	\$ 75,817	\$ 69,454
Short-term borrowings—trade receivable securitization facility	299,519	299,587
Accounts payable	173,603	148,761
Accrued liabilities	351,443	335,888
Liabilities held-for-sale	—	17,304
Total current liabilities	900,382	870,994
LONG-TERM DEBT	12,501,946	11,393,620
DEFERRED INCOME TAXES	399,496	500,949
OTHER NON-CURRENT LIABILITIES	204,114	161,302
Total liabilities	14,005,938	12,926,865
STOCKHOLDERS' DEFICIT:		
Common stock—\$.01 par value; authorized 224,400,000 shares; issued 56,895,686 and 56,093,659 shares at September 30, 2018 and 2017, respectively	569	561
Additional paid-in capital	1,208,742	1,095,319
Accumulated deficit	(2,246,578)	(3,187,220)
Accumulated other comprehensive income (loss)	4,100	(85,143)
Treasury stock, at cost; 4,161,326 and 4,159,207 shares at September 30, 2018 and 2017, respectively	(775,304)	(774,721)
Total stockholders' deficit	(1,808,471)	(2,951,204)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ 12,197,467	\$ 9,975,661

See Notes to Consolidated Financial Statements

TRANSDIGM GROUP INCORPORATED
CONSOLIDATED STATEMENTS OF INCOME
(Amounts in thousands, except per share amounts)

	Fiscal Years Ended September 30,		
	2018	2017	2016
NET SALES	\$ 3,811,126	\$ 3,504,286	\$ 3,171,411
COST OF SALES	1,633,616	1,519,659	1,443,348
GROSS PROFIT	2,177,510	1,984,627	1,728,063
SELLING AND ADMINISTRATIVE EXPENSES	450,095	415,575	382,858
AMORTIZATION OF INTANGIBLE ASSETS	72,454	89,226	77,445
INCOME FROM OPERATIONS	1,654,961	1,479,826	1,267,760
INTEREST EXPENSE—Net	663,008	602,589	483,850
REFINANCING COSTS	6,396	39,807	15,794
INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	985,557	837,430	768,116
INCOME TAX PROVISION	24,021	208,889	181,702
INCOME FROM CONTINUING OPERATIONS	961,536	628,541	586,414
LOSS FROM DISCONTINUED OPERATIONS, NET OF TAX	(4,474)	(31,654)	—
NET INCOME	957,062	596,887	586,414
NET INCOME APPLICABLE TO COMMON STOCK	\$ 900,914	\$ 437,630	\$ 583,414
Net earnings per share:			
Net earnings per share from continuing operations—basic and diluted	\$ 16.28	\$ 8.45	\$ 10.39
Net loss per share from discontinued operations—basic and diluted	(0.08)	(0.57)	—
Net earnings per share	\$ 16.20	\$ 7.88	\$ 10.39
Cash dividends paid per common share	\$ —	\$ 46.00	\$ —
Weighted-average shares outstanding:			
Basic and diluted	55,597	55,530	56,157

See Notes to Consolidated Financial Statements.

TRANSDIGM GROUP INCORPORATED
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Amounts in thousands)

	Fiscal Years Ended September 30,		
	2018	2017	2016
Net income	\$ 957,062	\$ 596,887	\$ 586,414
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	(10,253)	22,241	(31,846)
Interest rate swap and cap agreements	93,860	34,471	(9,648)
Pension liability adjustments	5,636	7,932	(12,284)
Other comprehensive income (loss), net of tax	89,243	64,644	(53,778)
TOTAL COMPREHENSIVE INCOME	\$ 1,046,305	\$ 661,531	\$ 532,636

See Notes to Consolidated Financial Statements.

TRANSDIGM GROUP INCORPORATED
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT
(Amounts in thousands, except share and per share amounts)

	Common Stock			Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock		Total
	Number of Shares	Common Stock	Additional Paid-In Capital			Number of Shares	Value	
BALANCE—September 30, 2015	55,100,094	\$ 551	\$ 950,324	\$ (1,717,232)	\$ (96,009)	(1,415,100)	\$ (175,940)	\$ (1,038,306)
Accrued unvested dividend equivalent payments and other	—	—	—	(16,145)	—	—	—	(16,145)
Compensation expense recognized for employee stock options and restricted stock	—	—	48,306	—	—	—	—	48,306
Exercise of employee stock options and restricted stock activity, net	666,709	7	30,112	—	—	(2,548)	(575)	29,544
Treasury stock purchased	—	—	—	—	—	(1,015,387)	(207,755)	(207,755)
Common stock issued	964	—	230	—	—	—	—	230
Net income	—	—	—	586,414	—	—	—	586,414
Interest rate swaps and caps, net of tax	—	—	—	—	(9,648)	—	—	(9,648)
Foreign currency translation adjustments	—	—	—	—	(31,846)	—	—	(31,846)
Pension liability adjustments, net of tax	—	—	—	—	(12,284)	—	—	(12,284)
BALANCE—September 30, 2016	55,767,767	558	1,028,972	(1,146,963)	(149,787)	(2,433,035)	(384,270)	(651,490)
Dividends paid	—	—	—	(2,422,295)	—	—	—	(2,422,295)
Accrued unvested dividend equivalent payments and other	—	—	—	(214,849)	—	—	—	(214,849)
Compensation expense recognized for employee stock options and restricted stock	—	—	44,931	—	—	—	—	44,931
Exercise of employee stock options and restricted stock activity, net	324,908	3	21,177	—	—	(2,548)	(630)	20,550
Treasury stock purchased	—	—	—	—	—	(1,723,624)	(389,821)	(389,821)
Common stock issued	984	—	239	—	—	—	—	239
Net income	—	—	—	596,887	—	—	—	596,887
Interest rate swaps and caps, net of tax	—	—	—	—	34,471	—	—	34,471
Foreign currency translation adjustments	—	—	—	—	22,241	—	—	22,241
Pension liability adjustments, net of tax	—	—	—	—	7,932	—	—	7,932
BALANCE—September 30, 2017	56,093,659	561	1,095,319	(3,187,220)	(85,143)	(4,159,207)	(774,721)	(2,951,204)
Accrued unvested dividend equivalent payments and other	—	—	—	(16,420)	—	—	—	(16,420)
Compensation expense recognized for employee stock options and restricted stock	—	—	55,481	—	—	—	—	55,481
Exercise of employee stock options, restricted stock activity and other, net	800,955	8	57,583	—	—	(2,119)	(583)	57,008
Common stock issued	1,072	—	359	—	—	—	—	359
Net income	—	—	—	957,062	—	—	—	957,062
Interest rate swaps and caps, net of tax	—	—	—	—	93,860	—	—	93,860
Foreign currency translation adjustments	—	—	—	—	(10,253)	—	—	(10,253)
Pension liability adjustments, net of tax	—	—	—	—	5,636	—	—	5,636
BALANCE—September 30, 2018	56,895,686	\$ 569	\$ 1,208,742	\$ (2,246,578)	\$ 4,100	(4,161,326)	\$ (775,304)	\$ (1,808,471)

See Notes to Consolidated Financial Statements.

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

	Fiscal Years Ended September 30,		
	2018	2017	2016
OPERATING ACTIVITIES:			
Net income	\$ 957,062	\$ 596,887	\$ 586,414
Net loss from discontinued operations	4,474	31,654	—
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	56,397	50,937	43,455
Amortization of intangible assets	73,447	90,088	78,215
Amortization of debt issuance costs, original issue discount and premium	22,128	21,106	16,211
Refinancing costs	6,396	39,807	15,794
Non-cash equity compensation	58,481	45,524	48,306
Deferred income taxes	(151,640)	(918)	5,808
Changes in assets/liabilities, net of effects from acquisitions of businesses:			
Trade accounts receivable	(43,811)	(54,669)	(80,114)
Inventories	(10,808)	5,127	(2,073)
Income taxes receivable/payable	36,161	18,219	(12,299)
Other assets	(4,813)	(10,564)	(4,919)
Accounts payable	18,075	(10,354)	(6,657)
Accrued interest	14,368	(958)	17,933
Accrued and other liabilities	(13,744)	(33,153)	(22,776)
Net cash provided by operating activities	<u>1,022,173</u>	<u>788,733</u>	<u>683,298</u>
INVESTING ACTIVITIES:			
Capital expenditures, net of disposals	(73,341)	(71,013)	(43,982)
Payments made in connection with acquisitions	(667,619)	(136,295)	(1,399,064)
Proceeds (payments made) in connection with the sale (purchase) of discontinued operations	57,383	(79,695)	—
Net cash used in investing activities	<u>(683,577)</u>	<u>(287,003)</u>	<u>(1,443,046)</u>
FINANCING ACTIVITIES:			
Proceeds from exercise of stock options	57,583	21,177	30,112
Dividends paid	(56,148)	(2,581,552)	(3,000)
Treasury stock purchased	—	(389,821)	(207,755)
Proceeds from term loans, net	12,779,694	2,937,773	1,711,515
Repayment on term loans	(12,174,305)	(1,284,698)	(834,409)
Proceeds from senior subordinated notes, net	489,608	300,386	939,584
Cash tender and redemption of senior subordinated notes due 2021, including premium	—	(528,847)	—
Proceeds from trade receivable securitization facility, net	—	99,471	—
Financing fees and other	(10,832)	(17,571)	(3,580)
Net cash provided by (used in) financing activities	<u>1,085,600</u>	<u>(1,443,682)</u>	<u>1,632,467</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	(1,740)	5,519	242
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	1,422,456	(936,433)	872,961
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	650,561	1,586,994	714,033
CASH AND CASH EQUIVALENTS, END OF PERIOD	<u>\$ 2,073,017</u>	<u>\$ 650,561</u>	<u>\$ 1,586,994</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid during the period for interest	<u>\$ 634,980</u>	<u>\$ 587,718</u>	<u>\$ 448,608</u>
Cash paid during the period for income taxes	<u>\$ 129,246</u>	<u>\$ 185,295</u>	<u>\$ 183,291</u>

See Notes to Consolidated Financial Statements.

TRANSDIGM GROUP INCORPORATED
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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 every commercial and military aircraft in service today. TransDigm Inc., along with TransDigm Inc.’s wholly-owned and majority-owned subsidiaries for which it has a controlling interest (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. ACQUISITIONS AND DIVESTITURES

During the last three fiscal years, the Company completed the acquisitions of Skandia, Extant, Kirkhill, three separate aerospace product lines (collectively, the “Third Quarter 2017 Acquisitions”), Y&F/Tactair, DDC and 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 September 30, 2018, the one-year measurement period is open for Skandia, Extant, and Kirkhill; therefore, the assets acquired and liabilities assumed related to these acquisitions are subject to adjustment until the end of their respective one-year measurement periods. The Company is in the process of obtaining a third-party valuation of certain intangible assets and tangible assets and liabilities of Skandia, Extant and Kirkhill. Pro forma net sales and results of operations for the acquisitions had they occurred at the beginning of the applicable fiscal year ended September 30, 2018 or 2017, 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.

Skandia – On July 13, 2018, the Company acquired all of the outstanding stock of Skandia Inc. (“Skandia”) for a total purchase price of approximately \$84.3 million, which is net of a \$0.2 million working capital settlement paid in the fourth quarter of fiscal 2018. Skandia provides highly engineered seating foam, foam fabrication, flammability testing and acoustic solutions for the business jet market. Skandia is included as a product line within an existing reporting unit in TransDigm’s Airframe segment. The Company expects that no goodwill recognized for the acquisition will be deductible for tax purposes.

Extant – On April 24, 2018, the Company acquired all of the outstanding stock of Extant for a total purchase price of approximately \$532.5 million in cash, which is net of a \$0.2 million working capital settlement received in the third quarter of fiscal 2018. Extant provides a broad range of proprietary aftermarket products and repair and overhaul services to the aerospace and defense end markets. Extant owns or exclusively licenses in excess of 2,500 assemblies and sub-assemblies on over 70 active platforms. Extant is included in TransDigm’s Power and Control segment.

Prior to the Company’s acquisition of Extant, Extant was owned by an equity fund sponsored by Warburg Pincus LLC. Michael Graff, a director of TransDigm, is a managing director of Warburg Pincus LLC and was chairman of the board of Extant. Robert Henderson, Vice Chairman of TransDigm, was also on the board of Extant and owned less than 2% of Extant on a fully diluted basis. In addition, Mr. Graff, W. Nicholas Howley, TransDigm’s Executive Chairman, and Messrs. Douglas Peacock and David Barr, directors of TransDigm, each had minority interests of less than 1% in the Warburg Pincus LLC fund that owned Extant.

The total purchase price of Extant 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 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	\$ 56,122
Property, plant, and equipment	4,096
Intangible assets	105,000
Goodwill	402,412
Total assets acquired	567,630
Liabilities assumed:	
Current liabilities	9,876
Other noncurrent liabilities	25,264
Total liabilities assumed	35,140
Net assets acquired	\$ 532,490

The Company expects that approximately \$44 million of goodwill recognized for the acquisition will be deductible for tax purposes over 15 years and approximately \$358 million of goodwill recognized for the acquisition will not be deductible for tax purposes.

Kirkhill – On March 15, 2018, the Company acquired the assets and certain liabilities of the Kirkhill elastomers business from Esterline Technologies for a total purchase price of approximately \$49.3 million, which is net of a \$0.6 million working capital settlement received in the third quarter of fiscal 2018. Kirkhill's products are primarily proprietary, sole source with significant aftermarket content and used in a broad variety of most major commercial transport and military platforms. Kirkhill is included in TransDigm's Airframe segment. The Company expects that no goodwill recognized for the acquisition will be deductible for tax purposes.

The Kirkhill acquisition includes loss contract reserves recorded at a fair value of approximately \$39.2 million at September 30, 2018. Of the \$39.2 million in loss contract reserves, \$9.0 million is included accrued liabilities and \$30.2 million is included in other non-current liabilities in the consolidated balance sheet at September 30, 2018. The Company is committed under certain existing Kirkhill agreements to supply products to our customers at selling prices that are not sufficient to cover the costs to produce such product. These agreements were existing at the time of the acquisition. The value of this reserve is analyzed and adjusted at each reporting period.

Third Quarter 2017 Acquisitions – The Third Quarter 2017 Acquisitions were acquired for an aggregate purchase price of approximately \$106.7 million in cash, which includes working capital settlements totaling \$1.0 million paid in the third and fourth quarters of fiscal 2017 and an earn-out of \$0.4 million paid in the second quarter of fiscal 2018. 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. Approximately \$66 million of goodwill recognized for the acquisitions is deductible for tax purposes over 15 years and approximately \$9 million of goodwill recognized for the acquisitions is not 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 consisted primarily of \$79.7 million paid in cash during fiscal 2017 and an approximately \$9.0 million indemnity holdback, of which \$8.5 million was paid in April 2018 and \$0.5 million remains a reserve as of September 30, 2018.

In connection with the settlement of a Department of Justice investigation into the competitive effects of the acquisition, during the fourth quarter of 2017, the Company committed to dispose of the Schroth business. Therefore, Schroth was classified as held-for-sale beginning in the fourth quarter of 2017. The results of operations of Schroth are reflected as discontinued operations in the accompanying consolidated financial statements.

On January 26, 2018, the Company completed the sale of Schroth in a management buyout to a private equity fund and certain members of Schroth management for approximately \$61.4 million, which includes a working capital adjustment of \$0.3 million that was settled in July 2018. Further disclosure related to Schroth's discontinued operations is included in Note 22.

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., for approximately \$258.8 million in cash, which includes a working capital settlement of \$2.7 million paid in the first quarter of 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. Approximately \$124 million of goodwill recognized for the acquisition is deductible for tax purposes over 15 years and approximately \$8 million of goodwill recognized for the acquisition is not deductible for tax purposes.

Data Device Corporation – On June 23, 2016, the Company acquired all of the outstanding stock of ILC Holdings, Inc., the parent company of Data Device Corporation, 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 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 Corporate Law. Once the Company paid the \$34.9 million settlement to the dissenting shareholders on October 20, 2016, the dissenting stockholders fully released their claims against the Company. 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. 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.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Consolidation—The accompanying consolidated financial statements were prepared in conformity with generally accepted accounting principles in the United States (“GAAP”) and include the accounts of TD Group and subsidiaries. All significant intercompany balances and transactions have been eliminated. Certain reclassifications have been made to the prior year financial statements to conform to current year presentation related to an organizational realignment effective October 1, 2017 of certain businesses comprising the Power & Control and the Non-Aviation segments.

Revenue Recognition and Related Allowances—Revenue is recognized from the sale of products when title and risk of loss passes to the customer, which is generally at the time of shipment. Substantially all product sales are made pursuant to firm, fixed-price purchase orders received from customers. Provisions for estimated returns, uncollectible accounts and the cost of repairs under contract warranty provisions are provided for in the same period as the related revenues are recorded and are principally based on historical results modified, as appropriate, by the most current information available. Due to uncertainties in the estimation process, it is possible that actual results may vary from the estimates.

Shipping and Handling Costs—Shipping and handling costs are included in cost of sales in the consolidated statements of income.

Research and Development Costs—The Company expenses research and development costs as incurred and classifies such amounts in selling and administrative expenses. The expense recognized for research and development costs for the years ended September 30, 2018, 2017 and 2016 was approximately \$73.8 million, \$73.8 million, and \$58.6 million, respectively.

Cash Equivalents—The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

Allowance for Uncollectible Accounts—The Company reserves for amounts determined to be uncollectible based on specific identification of losses and estimated losses based on historical experience. The allowance also incorporates a provision for the estimated impact of disputes with customers. The determination of the amount of the allowance for uncollectible accounts is subject to significant levels of judgment and estimation by management. If circumstances change or economic conditions deteriorate or improve, the allowance for uncollectible accounts could increase or decrease.

Inventories—Inventories are stated at the lower of cost or net realizable value. 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. Provision for potentially obsolete or slow-moving inventory is made based on management's analysis of inventory levels and future sales forecasts.

Property, Plant and Equipment—Property, plant and equipment are stated at cost and include improvements which significantly increase capacities or extend the useful lives of existing plant and equipment. Depreciation is computed using the straight-line method over the following estimated useful lives: land improvements from 10 to 20 years, buildings and improvements from 5 to 30 years, machinery and equipment from 2 to 10 years and furniture and fixtures from 3 to 10 years. Net gains or losses related to asset dispositions are recognized in earnings in the period in which dispositions occur. Routine maintenance, repairs and replacements are expensed as incurred.

Property, plant and equipment is assessed for potential impairment whenever indicators of impairment are present by determining whether the carrying value of the property can be recovered through projected, undiscounted cash flows from future operations over the property's remaining estimated useful life. Any impairment recognized is the amount by which the carrying amount exceeds the fair value of the asset. Fair value is measured based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques, including the discounted value of estimated future cash flows.

Debt Issuance Costs, Premiums and Discounts—The cost of obtaining financing as well as premiums and discounts are amortized using the effective interest method over the terms of the respective obligations as a component of interest expense within the consolidated statements of income. Debt issuance costs are presented in the consolidated balance sheets as a direct reduction from the carrying amount of the related debt liabilities.

Financial Instruments—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. As the interest rate swap and cap agreements are used to manage interest rate risk, any gains or losses from the derivative instruments that are reclassified into earnings are recognized in interest expense - net in the consolidated statements of income.

Intangible Assets—Intangible assets consist of identifiable intangibles acquired or recognized in accounting for the acquisitions (trademarks, trade names, technology, order backlog and other intangible assets) and goodwill. Goodwill and intangible assets that have indefinite useful lives (i.e., trademarks and trade names) are subject to annual impairment testing. Management

determines fair value using a discounted future cash flow analysis or other accepted valuation techniques. The Company performs an annual impairment test for goodwill and other intangible assets as of the first day of the fourth fiscal quarter of each year, or more frequently, if an event occurs or circumstances change that would more likely than not reduce fair value below current value.

At the time of goodwill impairment testing, the Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, and whether it is therefore necessary to perform the quantitative goodwill impairment test. The quantitative goodwill impairment test consists of two steps. The first step of the goodwill impairment test, used to identify potential impairment, compares the fair value of a reporting unit (as defined) with its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying amount, goodwill is not considered impaired, and the second step of the goodwill impairment test is unnecessary. The second step measures the amount of impairment, if any, by comparing the carrying value of the goodwill associated with a reporting unit to the implied fair value of the goodwill derived from the estimated overall fair value of the reporting unit and the individual fair values of the other assets and liabilities of the reporting unit.

GAAP requires that the annual, and any interim, impairment assessment be performed at the reporting unit level. The reporting unit level is one level below an operating segment. Substantially all goodwill was determined and recognized for each reporting unit pursuant to the accounting for the merger or acquisition as of the date of each transaction. With respect to acquisitions integrated into an existing reporting unit, any acquired goodwill is combined with the goodwill of the reporting unit.

The impairment test for indefinite lived intangible assets consists of a comparison between their fair values and carrying values. If the carrying amounts of intangible assets that have indefinite useful lives exceed their fair values, an impairment loss will be recognized in an amount equal to the sum of any such excesses.

The Company assesses the recoverability of its amortizable intangible assets only when indicators of impairment are present by determining whether the amortization over their remaining lives can be recovered through projected, undiscounted cash flows from future operations. Amortization of amortizable intangible assets is computed using the straight-line method over the following estimated useful lives: technology from 20 to 22 years, order backlog over one year, and other intangible assets over 20 years.

Stock-Based Compensation—The Company records stock-based compensation expense using the fair value method of accounting. Compensation expense is recorded over the vesting periods of the stock options, restricted stock and other stock-based incentives. No expense is recognized for any stock options, restricted stock and other stock-based incentives ultimately forfeited because the recipients fail to meet vesting requirements.

Income Taxes—The Company accounts for income taxes using an asset and liability approach. Deferred taxes are recorded for the difference between the book and tax basis of various assets and liabilities. A valuation allowance is provided when it is more likely than not that some or all of a deferred tax asset will not be realized.

Contingencies—During the ordinary course of business, the Company is from time to time threatened with, or may become a party to, legal actions and other proceedings. While the Company is currently involved in certain legal proceedings, it believes the results of these proceedings will not have a material adverse effect on its financial condition, results of operations, or cash flows.

Estimates—The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Comprehensive Income (Loss)—The term “comprehensive income (loss)” represents the change in stockholders’ equity (deficit) from transactions and other events and circumstances resulting from non-stockholder sources. The Company’s accumulated other comprehensive income or loss, consisting principally of fair value adjustments to its interest rate swap and cap agreements (net of tax), cumulative foreign currency translation adjustments and pension liability adjustments (net of tax), is reported separately in the accompanying consolidated statements of comprehensive income.

Foreign Currency Translation and Transactions—The assets and liabilities of subsidiaries located outside the United States are translated into U.S. dollars at the rates of exchange in effect at the balance sheet dates. Revenue and expense items are translated at the average monthly exchange rates prevailing during the period. Gains and losses resulting from foreign currency transactions are recognized currently in income, and those resulting from translation of financial statements are accumulated as a separate component of other comprehensive income (loss) for the period. Foreign currency gains or losses recognized currently in income from changes in exchange rates were immaterial to our results of operations.

Earnings per Share—Earnings per share information is determined using the two-class method, which includes the weighted-average number of common shares outstanding during the period and other securities that participate in dividends (“participating securities”). Our vested stock options are considered “participating securities” because they include non-forfeitable rights to dividends. In applying the two-class method, earnings are allocated to both common stock shares and participating securities based

on their respective weighted-average shares outstanding for the period. Diluted earnings per share information may include the additional effect of other securities, if dilutive, in which case the dilutive effect of such securities is calculated using the treasury stock method. Contingently issuable shares are not included in earnings per share until the period in which the contingency is satisfied; therefore, basic and diluted earnings per share are the same.

4. RECENT ACCOUNTING PRONOUNCEMENTS

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, which created 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 requires an entity to recognize revenue in a manner that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard also specifies the accounting of some costs to obtain or fulfill a contract with a customer and expands the disclosure requirements around contracts with customers. The Company will adopt the standard beginning October 1, 2018 using the modified retrospective method.

We have established our accounting policy, provided training to the Company’s reporting units and completed our evaluation of the new standard, including the impact on our business processes, systems and controls, and differences in the timing and/or method of revenue recognition for our contracts. As a result of the evaluation, the Company identified changes to and modified certain of our accounting policies and practices. The Company also designed and implemented specific controls over the evaluation of the impact of the new standard, including the calculation of the cumulative effect of adopting the new standard. We determined that the revenue recognition for our products and services will remain largely unchanged; and therefore, the adoption of ASC 606 will not have a material impact on our consolidated financial statements. We will provide expanded disclosures as required under ASC 606 in the consolidated financial statements upon adoption.

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. Additionally, in July 2018, the FASB issued ASU 2018-10, “Codification Improvements to ASC 842, Leases” which provides narrow amendments to clarify how to apply certain aspects of the new leases standard. The new leases standard 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 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, with early adoption permitted. The Company elected to early adopt this standard in the fourth quarter of fiscal 2017. The adoption of this standard did not have a material impact on its consolidated statement of cash flows.

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 and disclosures.

In March 2017, the FASB issued ASU 2017-07, “Compensation—Retirement Benefits (ASC 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost,” that will change how employers that sponsor defined benefit and/or other postretirement benefit plans present the net periodic benefit cost in the income statement. Under the new guidance, employers will present the service cost component of the net periodic benefit cost in the same income statement line item(s) as other employee compensation costs arising from services rendered during the period. In addition, only the service cost component will be eligible for capitalization in assets. Employers will present the other components separately from the line item(s) that includes the service cost and outside of any subtotal of operating income, if one is presented. Employers will have to disclose the line(s) used to present the other components of net periodic benefit cost, if the components are not presented separately in the income statement. The standard is effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within the fiscal year. Early adoption is 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 our 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 our consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (ASC 815): Targeted Improvements to Accounting for Hedging Activities," which amends the FASB's hedge accounting model to enable entities to better portray their risk management activities in financial statements. The guidance eliminates the requirement to separately measure and report hedge ineffectiveness and generally requires the entire change in the fair value of a hedging instrument to be presented in the same income statement line as the hedged item. The guidance also eases certain documentation and assessment requirements and modifies the accounting for components excluded from the assessment of hedge effectiveness. ASU 2017-12 is effective for the Company for annual reporting periods, including interim periods therein, beginning October 1, 2018, with early adoption permitted. As early adoption is permissible, the Company adopted the pronouncement beginning October 1, 2017. Changes were applied prospectively in accordance with the standard and prior periods were not adjusted. The adoption of this standard did not have a material impact on our consolidated financial statements and disclosures.

In February 2018, the FASB issued ASU 2018-02, "Income Statement - Reporting Comprehensive Income (ASC 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income," which gives entities the option to reclassify tax effects stranded in accumulated other comprehensive income as a result of the Tax Cuts and Jobs Act (the "Act") into retained earnings. The guidance allows entities to reclassify from accumulated other comprehensive income to retained earnings stranded tax effects resulting from the Act's new federal corporate income tax rate. The guidance also allows entities to elect to reclassify other stranded tax effects that relate to the Act but do not directly relate to the change in the federal tax rate (e.g., state taxes, changing from a worldwide tax system to a territorial system). Tax effects that are stranded in accumulated other comprehensive income for other reasons (e.g., prior changes in tax law, a change in valuation allowance) may not be reclassified. The standard is effective for all entities for fiscal years beginning after December 15, 2018, and interim periods within the fiscal year. Early adoption is permitted, including adoption in any interim period for which financial statements have not yet been issued. Entities have the option to apply the guidance retrospectively or in the period of adoption. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

In March 2018, the FASB issued ASU 2018-05, "Income Taxes (ASC 740), Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118." The ASU adds various SEC paragraphs pursuant to the issuance of the December 2017 SEC Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which was effective immediately. The SEC issued SAB 118 to address concerns about reporting entities' ability to timely comply with the accounting requirements to recognize all of the effects of the Tax Cuts and Jobs Act in the period of enactment. SAB 118 allows disclosure that timely determination of some or all of the income tax effects from the Tax Cuts and Jobs Act are incomplete by the due date of the financial statements and if possible to provide a reasonable estimate. We have accounted for the tax effects of the Tax Cuts and Jobs Act under the guidance of SAB 118, on a provisional basis. Our accounting for certain income tax effects is incomplete, but we have determined reasonable estimates for those effects and have recorded provisional amounts in our consolidated financial statements. Refer to Note 13, "Income Taxes," for further information.

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):

	Fiscal Years Ended September 30,		
	2018	2017	2016
Numerator for earnings per share:			
Net income from continuing operations	\$ 961,536	\$ 628,541	\$ 586,414
Less dividends paid on participating securities	(56,148)	(159,257)	(3,000)
	\$ 905,388	\$ 469,284	\$ 583,414
Net loss from discontinued operations	(4,474)	(31,654)	—
Net income applicable to common stock—basic and diluted	\$ 900,914	\$ 437,630	\$ 583,414
Denominator for basic and diluted earnings per share under the two-class method:			
Weighted average common shares outstanding	52,345	52,517	53,326
Vested options deemed participating securities	3,252	3,013	2,831
Total shares for basic and diluted earnings per share	55,597	55,530	56,157
Net earnings per share from continuing operations—basic and diluted	\$ 16.28	\$ 8.45	\$ 10.39
Net loss per share from discontinued operations—basic and diluted	(0.08)	(0.57)	—
Net earnings per share	\$ 16.20	\$ 7.88	\$ 10.39

6. SALES AND TRADE ACCOUNTS RECEIVABLE

Sales—The Company’s sales and receivables are concentrated in the aerospace industry. TransDigm’s customers include: distributors of aerospace components; commercial airlines, large commercial transport and regional and business aircraft OEMs; various armed forces of the United States and friendly foreign governments; defense OEMs; system suppliers; and various other industrial customers.

In 2018, 2017 and 2016, two customers individually accounted for more than 10% of the Company’s net sales. One customer accounted for approximately 11%, 13% and 13% of the Company’s net sales for fiscal years ended 2018, 2017 and 2016, respectively. The other customer accounted for approximately 10%, 11% and 12% of the Company’s net sales for fiscal years ended 2018, 2017 and 2016, respectively. Sales to these customers were split approximately evenly between the Power & Control and Airframe segments. Sales to foreign customers, primarily in Western Europe, Canada and Asia, were \$1,355.1 million, \$1,318.9 million and \$1,169.5 million during fiscal years ended 2018, 2017 and 2016.

Trade Accounts Receivable—Trade accounts receivable consist of the following at September 30 (in thousands):

	2018	2017
Trade accounts receivable—gross	\$ 708,984	\$ 639,946
Allowance for uncollectible accounts	(4,674)	(3,819)
Trade accounts receivable—net	\$ 704,310	\$ 636,127

At September 30, 2018, approximately 22% of the Company’s trade accounts receivable was due from two customers. One customer accounted for approximately 12% percent of the Company’s trade accounts receivable and the other customer accounted for approximately 10% of the Company’s trade accounts receivable. In addition, approximately 37% of the Company’s trade accounts receivable was due from entities that principally operate outside of the United States. Credit is extended based on an evaluation of each customer’s financial condition and collateral is generally not required.

7. INVENTORIES

Inventories consist of the following at September 30 (in thousands):

	2018	2017
Raw materials and purchased component parts	\$ 540,290	\$ 496,899
Work-in-progress	237,335	187,009
Finished Goods	127,018	131,548
Total	904,643	815,456
Reserve for excess and obsolete inventory	(99,351)	(84,775)
Inventories—net	\$ 805,292	\$ 730,681

8. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following at September 30 (in thousands):

	2018	2017
Land and improvements	\$ 77,455	\$ 56,554
Buildings and improvements	171,269	161,990
Machinery, equipment and other	448,014	376,659
Construction in progress	31,237	22,037
Total	727,975	617,240
Accumulated depreciation	(339,642)	(292,316)
Property, plant and equipment—net	\$ 388,333	\$ 324,924

9. INTANGIBLE ASSETS

Other intangible assets - net in the consolidated balance sheets consist of the following at September 30 (in thousands):

	2018			2017		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Trademarks and trade names	\$ 799,749	\$ —	\$ 799,749	\$ 729,931	\$ —	\$ 729,931
Technology	1,347,314	416,579	930,735	1,292,719	351,638	941,081
Order backlog	12,200	5,409	6,791	29,000	26,668	2,332
Other	73,434	22,305	51,129	63,599	19,081	44,518
Total	\$ 2,232,697	\$ 444,293	\$ 1,788,404	\$ 2,115,249	\$ 397,387	\$ 1,717,862

Information regarding the amortization expense of amortizable intangible assets is detailed below (in thousands):

Annual Amortization Expense:

Years ended September 30,

2018	\$ 72,454
2017	89,226
2016	77,445

Estimated Amortization Expense:

Years ending September 30,

2019	\$ 75,640
2020	70,307
2021	70,307
2022	70,307
2023	70,307

Intangible assets acquired during the fiscal year ended September 30, 2018 were as follows (in thousands):

	Gross Amount	Amortization Period
Intangible assets not subject to amortization:		
Goodwill	\$ 475,861	
Trademarks and trade names	70,400	
	<u>546,261</u>	
Intangible assets subject to amortization:		
Technology	58,400	20 years
Order backlog	9,500	1 year
Other	10,160	20 years
	<u>78,060</u>	17.7 years
Total	<u>\$ 624,321</u>	

The changes in the carrying amount of goodwill by segment for the fiscal years ended September 30, 2017 and 2018 were as follows (in thousands):

	Power & Control	Airframe	Non-aviation	Total
Balance at September 30, 2016	\$ 3,209,584	\$ 2,376,593	\$ 93,275	\$ 5,679,452
Goodwill acquired during the year (Note 2)	70,369	58,783	—	129,152
Write-down of discontinued operations (Note 22)	—	(32,000)	—	(32,000)
Reclass of goodwill acquired to assets held-for-sale (Note 22)	—	(26,783)	—	(26,783)
Purchase price allocation adjustments	(9,972)	—	—	(9,972)
Currency translation adjustment	—	5,489	—	5,489
Balance at September 30, 2017	<u>3,269,981</u>	<u>2,382,082</u>	<u>93,275</u>	<u>5,745,338</u>
Goodwill acquired during the year (Note 2)	402,540	73,321	—	475,861
Purchase price allocation adjustments	5,354	—	—	5,354
Currency translation adjustment	—	(3,258)	—	(3,258)
Other	(192)	187	—	(5)
Balance at September 30, 2018	<u>\$ 3,677,683</u>	<u>\$ 2,452,332</u>	<u>\$ 93,275</u>	<u>\$ 6,223,290</u>

10. ACCRUED LIABILITIES

Accrued liabilities consist of the following at September 30 (in thousands):

	2018	2017
Compensation and related benefits	\$ 81,035	\$ 68,945
Interest	96,590	82,222
Interest rate swap agreements	528	20,740
Product warranties	21,056	22,971
Dividend equivalent payments—current (see Note 17)	24,200	56,506
Environmental and other litigation reserves	31,079	4,121
Other	96,955	80,383
Total	<u>\$ 351,443</u>	<u>\$ 335,888</u>

11. DEBT

The Company's debt consists of the following at September 30 (in thousands):

	2018			
	Gross Amount	Debt Issuance Costs	Original Issue Discount or Premium	Net Amount
Short-term borrowings—trade receivable securitization facility	\$ 300,000	\$ (481)	\$ —	\$ 299,519
Term loans	\$ 7,599,932	\$ (69,697)	\$ (21,030)	\$ 7,509,205
5.50% senior subordinated notes due 2020 (2020 Notes)	550,000	(2,187)	—	547,813
6.00% senior subordinated notes due 2022 (2022 Notes)	1,150,000	(5,501)	—	1,144,499
6.50% senior subordinated notes due 2024 (2024 Notes)	1,200,000	(6,866)	—	1,193,134
6.50% senior subordinated notes due 2025 (2025 Notes)	750,000	(3,505)	3,636	750,131
6.375% senior subordinated notes due 2026 (6.375% 2026 Notes)	950,000	(7,798)	—	942,202
6.875% senior subordinated notes due 2026 (6.875% 2026 Notes)	500,000	(5,616)	(3,605)	490,779
	<u>12,699,932</u>	<u>(101,170)</u>	<u>(20,999)</u>	<u>12,577,763</u>
Less current portion	76,427	(610)	—	75,817
Long-term debt	<u>\$ 12,623,505</u>	<u>\$ (100,560)</u>	<u>\$ (20,999)</u>	<u>\$ 12,501,946</u>

	2017			
	Gross Amount	Debt Issuance Costs	Original Issue Discount or Premium	Net Amount
Short-term borrowings—trade receivable securitization facility	\$ 300,000	\$ (413)	\$ —	\$ 299,587
Term loans	\$ 6,973,009	\$ (64,104)	\$ (18,948)	\$ 6,889,957
2020 Notes	550,000	(3,243)	—	546,757
2022 Notes	1,150,000	(6,941)	—	1,143,059
2024 Notes	1,200,000	(8,042)	—	1,191,958
2025 Notes	750,000	(4,033)	4,182	750,149
6.375% 2026 Notes	950,000	(8,806)	—	941,194
	<u>11,573,009</u>	<u>(95,169)</u>	<u>(14,766)</u>	<u>11,463,074</u>
Less current portion	70,031	(577)	—	69,454
Long-term debt	<u>\$ 11,502,978</u>	<u>\$ (94,592)</u>	<u>\$ (14,766)</u>	<u>\$ 11,393,620</u>

Trade Receivable Securitization Facility

During fiscal 2014, the Company established a trade receivable securitization facility (the "Securitization Facility"). The Securitization Facility effectively increases the Company's borrowing capacity depending on the amount of the 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 2018, the Company amended the Securitization Facility to increase the borrowing capacity to \$350 million and extend the maturity date to July 31, 2019. As of September 30, 2018, the Company has borrowed \$300 million under the Securitization Facility. The Securitization Facility is collateralized by substantially all of the Company's domestic operations' trade accounts receivable.

Amendment No. 4 to the Second Amended and Restated Credit Agreement

On November 30, 2017, the Company entered into Amendment No. 4 to the Second Amended and Restated Credit Agreement. Pursuant to Amendment No. 4, TransDigm, among other things, incurred new tranche E term loans and new Tranche F term loans in aggregate principal amounts equal to \$1,503 million and \$2,857 million, respectively, and repaid in full all of the existing tranche E term loans and Tranche F term loans outstanding under the Second Amended and Restated Credit Agreement immediately prior to the refinancing facility agreement. Additionally, pursuant to Amendment No. 4, TransDigm converted approximately \$798 million of existing tranche D term loans into additional tranche F term loans. The refinancing facility agreement also decreased the margin applicable to the existing tranche E term loans and tranche F term loans to LIBO rate plus 2.75% per annum. The terms

and conditions (other than maturity date and pricing) that apply to the tranche E and tranche F term loans are substantially the same as the terms and conditions that apply to the tranche D term loans immediately prior to Amendment No. 4.

In addition to the incremental discount of \$1.0 million recorded for the tranche F term loans, the Company capitalized \$2.9 million and expensed \$0.7 million of refinancing costs representing debt issuance costs associated with Amendment No. 4 during the fiscal year ended September 30, 2018. The Company also wrote off \$0.5 million in unamortized debt issuance costs related to the tranche D term loans that were converted to tranche F term loans and wrote off \$0.2 million in unamortized debt issuance costs related to the tranche F terms loans.

Refinancing Facility Agreement to the Second Amended and Restated Credit Agreement

On February 22, 2018, the Company entered into a refinancing facility agreement. TransDigm, among other things, incurred new tranche G term loans in an aggregate principal amount equal to \$1,810 million and repaid in full all of the existing tranche G term loans outstanding under the Second and Amended Restated Credit Agreement immediately prior to the refinancing facility agreement. The refinancing facility agreement also decreased the margin applicable to the tranche G term loans to LIBO rate plus 2.5% per annum. The terms and conditions that apply to the tranche G term loans other than pricing are substantially the same as the terms and conditions that apply to the tranche G term loans immediately prior to the refinancing facility agreement.

The Company capitalized \$0.5 million and expensed \$0.3 million of refinancing costs representing debt issuance costs associated with the refinancing facility agreement during the fiscal year ended September 30, 2018. Additionally, the Company wrote off \$0.2 million in unamortized debt issuance costs related to the tranche G terms loans.

Issuance of Senior Subordinated Notes

On May 8, 2018, TransDigm UK Holdings plc, a wholly-owned, indirect subsidiary of TD Group, issued \$500 million in aggregate principal amount of new 6.875% 2026 Notes at an issue price of 99.24% of the principal amount. The 2026 Notes bear interest at the rate of 6.875% per annum, which accrues from May 8, 2018 and is payable semiannually in arrears on May 15 and November 15 of each year, commencing on November 15, 2018. The 2026 Notes mature on May 15, 2026, unless earlier redeemed or repurchased, and are subject to the terms and conditions set forth in the indentures governing the 6.875% 2026 Notes.

In addition to the discount of \$3.8 million recorded upon the issuance of the 6.875% 2026 Notes, the Company capitalized \$5.9 million and expensed \$0.7 million in refinancing costs representing fees associated with the issuance of the 6.875% 2026 Notes during the fiscal year ended September 30, 2018.

Amendment No. 5 to the Second Amended and Restated Credit Agreement

On May 30, 2018, the Company entered into Amendment No. 5 to the Second Amended and Restated Credit Agreement. The Company capitalized \$7.2 million and expensed \$0.2 million of refinancing costs representing fees associated with the execution of Amendment No. 5 during the fiscal year ended September 30, 2018.

Pursuant to Amendment No. 5, the Company, among other things, incurred new tranche E term loans in an aggregate principal amount equal to \$1,322 million, and repaid in full all of the existing tranche E term loans outstanding under the Second Amended and Restated Credit Agreement immediately prior to Amendment No. 5. The Company also incurred incremental tranche E term loans in an aggregate principal amount equal to \$933 million. The new tranche E term loans and incremental tranche E term loans mature on May 30, 2025. Amendment No. 5 also decreased the margin applicable to the new tranche E term loans to LIBO rate plus 2.5% per annum. The terms and conditions that apply to the tranche E term loans, other than the maturity date and margin, are substantially the same as the terms and conditions that apply to the tranche E term loans immediately prior to Amendment No. 5. In addition to the discount of \$4.7 million recorded for the tranche E term loans, the Company capitalized \$7.0 million and expensed \$2.7 million of refinancing costs representing debt issuance costs associated with tranche E term loans during the fiscal year ended September 30, 2018. The Company also wrote off \$0.3 million in unamortized debt issuance costs related to the tranche E terms loans.

Additionally, pursuant to Amendment No. 5, the Company incurred new tranche F term loans in an aggregate principal amount equal to \$3,578 million, and repaid in full all of the existing tranche F term loans outstanding under the Second Amended and Restated Credit Agreement immediately prior to Amendment No. 5. Amendment No. 5 also decreased the margin applicable to the tranche F term loans to LIBO rate plus 2.5% per annum. The Company capitalized \$2.0 million of refinancing costs representing debt issuance costs associated with the tranche F term loans during the fiscal year ended September 30, 2018. Additionally, the Company wrote off \$0.3 million in unamortized debt issuance costs related to the tranche F term loans.

Finally, under the terms of Amendment No. 5, the maturity date of our \$600 million revolving credit facility was extended to December 28, 2022. The terms and conditions that apply to the revolving credit facility, other than the maturity date, are substantially the same as the terms and conditions that applied to the revolving credit facility immediately prior to Amendment No. 5. At September 30, 2018, the Company had \$17.5 million in letters of credit outstanding and \$582.5 million of borrowings available under the revolving commitments. During the fiscal year ended September 30, 2018, the Company capitalized \$0.4

million and expensed \$0.3 million representing debt issuance costs expensed in conjunction with the refinancing of the revolving credit facility.

Term Loans

As of September 30, 2018 and 2017, TransDigm had \$7,599.9 million and \$6,973.0 million in fully drawn term loans and \$600 million in revolving commitments. The term loans consist of three tranches as of September 30, 2018 and four tranches as of September 30, 2017 as follows (in millions):

Term Loan Facility	Maturity Date	Interest Rate	Aggregate Principal as of September 30,	
			2018	2017
Tranche D	Not applicable	Not applicable	\$ —	\$ 798.1
Tranche E	May 30, 2025	LIBO rate + 2.50%	\$ 2,243.7	\$ 1,503.4
Tranche F	June 9, 2023	LIBO rate + 2.50%	\$ 3,559.9	\$ 2,857.0
Tranche G	August 22, 2024	LIBO rate + 2.50%	\$ 1,796.3	\$ 1,814.5

The interest rates per annum applicable to all of the existing tranches of term loans are, 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 not subject to a floor. At September 30, 2018 and 2017, the applicable interest rates were as follows:

Term Loan Facility	Interest Rate as of September 30,	
	2018	2017
Tranche D	—%	4.24%
Tranche E	4.58%	4.24%
Tranche F	4.58%	4.24%
Tranche G	4.58%	4.26%

Debt Issuance Costs, Premiums and Discounts

During the fiscal year ended September 30, 2018, the Company recorded refinancing costs of \$6.4 million representing the refinancing of tranche D, E, F & G term loans, and issuance of the \$500 million 6.875% Senior Subordinated Notes. During the fiscal year ended September 30, 2017, the Company recorded refinancing costs of \$39.8 million representing debt issuance costs and premium expensed in conjunction with the new tranche G term loans, the refinancing of the tranche C term loans, and additional \$300 million tack-on to the 6.375% Notes. During the fiscal year ended September 30, 2016, the Company recorded refinancing costs of \$15.8 million representing debt issuance costs expensed in conjunction with the refinancing of the tranche C term loans.

Interest Rate Swap and Cap Agreements

See Note 20, "Derivatives and Hedging Activities," for information about how our interest rate swap and cap agreements are used to manage interest rate risk associated with floating-rate borrowings under our credit facilities.

Senior Subordinated Notes

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%
6.875% 2026 Notes	\$500 million	May 15, 2026	6.875%
6.375% 2026 Notes	\$950 million	June 15, 2026	6.375%

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 100%-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. See Note 25, "Supplemental Guarantor Information," for further details. 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 Restated Credit Agreement. TransDigm is in compliance with all the covenants contained in the Notes.

At September 30, 2018, future maturities of long-term debt are as follows (in thousands):

Fiscal years ended September 30,	
2019	\$ 76,427
2020	76,427
2021	626,427
2022	1,226,427
2023	3,457,393
Thereafter	7,236,831
	<u>\$ 12,699,932</u>

12. RETIREMENT PLANS

Defined Contribution Plans—The Company sponsors certain defined contribution employee savings plans that cover substantially all of the Company's non-union employees. Under certain plans, the Company contributes a percentage of employee compensation and matches a portion of employee contributions. The cost recognized for such contributions for the fiscal years ended September 30, 2018, 2017 and 2016 was approximately \$14.9 million, \$14.6 million and \$12.7 million, respectively.

Defined Benefit Pension Plans—The Company maintains certain non-contributory defined benefit pension plans. The Company's funding policy is to contribute actuarially determined amounts allowable under tax and statutory regulations for the qualified plans. The Company uses a September 30th measurement date for its defined benefit pension plans.

The Company maintains certain qualified, non-contributory defined benefit pension plans, which together cover certain union employees. The plans provide benefits of stated amounts for each year of service. The plan assets as of September 30, 2018 and 2017 were approximately \$68.5 million and \$69.9 million, respectively. The Company's projected benefit obligation for these defined benefit pension plans at September 30, 2018 and 2017 was \$84.1 million and \$91.7 million, respectively. The total liability recognized at September 30, 2018 and 2017 was \$15.6 million and \$21.8 million, respectively. The decrease in the total liability at September 30, 2018 compared to September 30, 2017 is primarily attributable to the change in pension assumptions, particularly a higher discount rate, for the AmSafe Bridport Limited pension plan.

The net periodic pension cost recognized in the consolidated statements of income for the fiscal years ended September 30, 2018, 2017, and 2016 was \$1.0 million, \$1.7 million, and \$1.0 million, respectively.

The Company has a non-qualified, non-contributory defined benefit pension plan, which covers certain retired employees. The plan is unfunded and provides defined benefits based on the final average salary of the employees as defined in the plan. The projected benefit obligation for this defined benefit pension plan and the total liability recognized in the Consolidated Balance Sheet at September 30, 2018 and 2017 was approximately \$8.1 million and \$8.8 million, respectively. The net periodic pension cost recognized in the consolidated statements of income for each of the fiscal years ended September 30, 2018, 2017 and 2016 was \$0.4 million.

13. INCOME TAXES

The Company's income from continuing operations before income taxes includes the following components for the periods shown below (in thousands):

	Fiscal Years Ended September 30,		
	2018	2017	2016
United States	\$ 826,539	\$ 698,201	\$ 641,395
Foreign	159,018	139,229	126,721
	<u>\$ 985,557</u>	<u>\$ 837,430</u>	<u>\$ 768,116</u>

The Company's income tax provision on income from continuing operations consists of the following for the periods shown below (in thousands):

	Fiscal Years Ended September 30,		
	2018	2017	2016
Current			
Federal	\$ 136,651	\$ 179,884	\$ 153,957
State	11,771	8,596	9,234
Foreign	27,239	21,327	12,703
	<u>175,661</u>	<u>209,807</u>	<u>175,894</u>
Deferred	(151,640)	(918)	5,808
	<u>\$ 24,021</u>	<u>\$ 208,889</u>	<u>\$ 181,702</u>

The differences between the income tax provision on income from continuing operations at the federal statutory income tax rate and the tax provision shown in the accompanying consolidated statements of income for the periods shown below are as follows (in thousands):

	Fiscal Years Ended September 30,		
	2018	2017	2016
Tax at statutory rate of 24.5% (35% for fiscal 2017 and 2016)	\$ 241,853	\$ 293,129	\$ 268,841
Stock compensation	(50,796)	(50,314)	(43,565)
Domestic manufacturing deduction	(15,091)	(17,832)	(16,902)
US tax reform ⁽¹⁾	(146,380)	—	—
Foreign rate differential	(13,770)	(29,685)	(30,079)
Other—net	8,205	13,591	3,407
Income tax provision	<u>\$ 24,021</u>	<u>\$ 208,889</u>	<u>\$ 181,702</u>

- (1) On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was enacted. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings from certain foreign subsidiaries that were previously deferred as well as other changes. We recorded provisional tax benefits of \$176.4 million related to the remeasurement of our net U.S. deferred tax liabilities to reflect the reduction in the corporate tax rate. We also recorded a provisional tax expense of \$30.0 million related to the one-time transition tax.

The components of the deferred taxes consist of the following at September 30 (in thousands):

	2018	2017
Deferred tax liabilities:		
Intangible assets	\$ (469,939)	\$ (647,140)
Property, plant and equipment	(26,615)	(29,240)
Interest rate swaps and caps	(20,052)	15,961
Unremitted foreign earnings	(4,488)	(10,784)
Employee benefits	73,906	107,195
Net operating losses	46,487	33,462
Inventories	20,916	31,077
Environmental reserves	8,551	15,518
Product warranty reserves	4,471	7,419
Other	14,516	8,797
Total	(352,247)	(467,735)
Add: Valuation allowance	(47,249)	(33,214)
Total net deferred tax liabilities	\$ (399,496)	\$ (500,949)

At September 30, 2018, the Company has United Kingdom net operating loss carryforwards of approximately \$23.0 million, German net operating loss carryforwards of approximately \$10.1 million and state net operating loss carryforwards of approximately \$1,011.0 million that expire in various years from 2018 to 2038. A valuation allowance has been established equal to the amount of the net operating losses that the Company believes will not be utilized. The Company had state tax credit carryforwards of \$3.1 million that expire from 2029 to 2034.

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and local jurisdictions, as well as foreign jurisdictions located in Belgium, Canada, China, France, Germany, Hong Kong, Hungary, Japan, 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 examination in the U.S. for its fiscal 2014 federal taxes. The Company expects the examinations to be completed during fiscal 2019. In addition, the Company is subject to state income tax examinations for fiscal years 2009 and later.

The Act's one-time repatriation tax liability effectively taxed the undistributed earnings previously deferred from U.S. income taxes. We have provided for foreign withholding taxes in jurisdictions in which we are not considered definitely reinvested, however, such amounts are not significant.

At September 30, 2018, we have not completed our accounting for the tax effects of enactment of the Act; however we have made a reasonable estimate of the effects on our existing deferred tax balances and the one-time transition tax in accordance with U.S. Securities and Exchange Commission Staff Accounting Bulletin No. 118. We are still analyzing certain aspects of the Act and refining our calculations, which could potentially result in changes to our current estimates. Any revisions to the impacts of the Act will be finalized by the first quarter of the fiscal year ending September 30, 2019.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	2018	2017
Balance at beginning of period	\$ 8,655	\$ 8,706
Additions based on tax positions related to the prior year	4,637	1,643
Additions based on tax positions related to the current year	2,390	500
Reductions based on tax positions related to the prior year	(100)	(963)
Settlement with tax authorities	(66)	—
Lapse in statute of limitations	(1,436)	(1,231)
Balance at end of period	\$ 14,080	\$ 8,655

Unrecognized tax benefits at September 30, 2018 and 2017, the recognition of which would have an effect on the effective tax rate for each fiscal year, amounted to \$14.1 million and 8.7 million, respectively. The Company classifies all income tax related interest and penalties as income tax expense, which were not significant for the years ended September 30, 2018, 2017 and 2016.

As of September 30, 2018 and 2017, the Company accrued \$1.9 million and \$1.2 million, respectively, for the potential payment of interest and penalties. The Company anticipates no significant changes to its total unrecognized tax benefits through fiscal 2019.

14. ENVIRONMENTAL LIABILITIES

Our operations and facilities are subject to a number of federal, state, local and foreign environmental laws and regulations that govern, among other things, discharges of pollutants into the air and water, the generation, handling, storage and disposal of hazardous materials and wastes, the remediation of contamination and the health and safety of our employees. Environmental laws and regulations may require that the Company investigate and remediate the effects of the release or disposal of materials at sites associated with past and present operations. Certain facilities and third-party sites utilized by the Company have been identified as potentially responsible parties under the federal superfund laws and comparable state laws. The Company is currently involved in the investigation and remediation of a number of sites under applicable laws.

Estimates of the Company's environmental liabilities are based on current facts, laws, regulations and technology. These estimates take into consideration the Company's prior experience and professional judgment of the Company's environmental advisors. Estimates of the Company's environmental liabilities are further subject to uncertainties regarding the nature and extent of site contamination, the range of remediation alternatives available, evolving remediation standards, imprecise engineering evaluations and cost estimates, the extent of corrective actions that may be required and the number and financial condition of other potentially responsible parties, as well as the extent of their responsibility for the remediation.

Accordingly, as investigation and remediation proceed, it is likely that adjustments in the Company's accruals will be necessary to reflect new information. The amounts of any such adjustments could have a material adverse effect on the Company's results of operations or cash flows in a given period. Based on currently available information, however, the Company does not believe that future environmental costs in excess of those accrued with respect to sites for which the Company has been identified as a potentially responsible party are likely to have a material adverse effect on the Company's financial condition.

Environmental liabilities are recorded when the liability is probable and the costs are reasonably estimable, which generally is not later than at completion of a feasibility study or when the Company has recommended a remedy or has committed to an appropriate plan of action. The Company also takes into consideration the estimated period of time in which payments will be required. The liabilities are reviewed periodically and, as investigation and remediation proceed, adjustments are made as necessary. Liabilities for losses from environmental remediation obligations do not consider the effects of inflation and anticipated expenditures are not discounted to their present value. The liabilities are not offset by possible recoveries from insurance carriers or other third parties, but do reflect anticipated allocations among potentially responsible parties at federal superfund sites or similar state-managed sites, third party indemnity obligations, and an assessment of the likelihood that such parties will fulfill their obligations at such sites.

The Company's consolidated balance sheets includes environmental remediation obligations at September 30, 2018 and 2017 of \$39.1 million and \$39.9 million, respectively.

15. CAPITAL STOCK

TD Group consists of 224,400,000 shares of \$.01 par value common stock and 149,600,000 shares of \$.01 par value preferred stock. The total number of shares of common stock issued at September 30, 2018 and 2017 was 56,895,686 and 56,093,659, respectively. The total number of shares held in treasury at September 30, 2018 and 2017 were 4,161,326 and 4,159,207, respectively. There were no shares of preferred stock outstanding at September 30, 2018 and 2017. The terms of the preferred stock have not been established.

On November 8, 2017, our Board of Directors, authorized a new stock repurchase program replacing the previous \$600 million program and permitting repurchases of our outstanding shares not to exceed \$650 million in the aggregate, subject to any restrictions specified in the Credit Agreement and/or Indentures governing the existing Notes. No repurchases were made under the program during the fiscal year ended September 30, 2018.

16. 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, engineered connectors and elastomers, 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 recorded as corporate expenses including refinancing costs, acquisition-related costs, transaction-related costs and non-cash compensation charges incurred in connection with the Company's stock option 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 insignificant for the periods presented below. Certain corporate-level expenses are allocated to the operating segments.

Effective October 1, 2017, the Company made an organizational realignment of certain businesses comprising the Power & Control, Airframe and the Non-Aviation segments. Operating results for the years ended September 30, 2018, 2017 and 2016, and total assets as of September 30, 2018 and 2017 were reclassified to conform to the presentation for the fiscal year ended September 30, 2018.

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

	Fiscal Years Ended September 30,		
	2018	2017	2016
Net sales to external customers			
Power & Control	\$ 2,139,135	\$ 1,927,244	\$ 1,621,741
Airframe	1,530,942	1,442,073	1,447,894
Non-aviation	141,049	134,969	101,776
	<u>\$ 3,811,126</u>	<u>\$ 3,504,286</u>	<u>\$ 3,171,411</u>

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

	Fiscal Years Ended September 30,		
	2018	2017	2016
EBITDA As Defined			
Power & Control	\$ 1,114,464	\$ 980,046	\$ 787,418
Airframe	759,253	726,630	709,858
Non-aviation	44,310	42,475	28,228
Total segment EBITDA As Defined	1,918,027	1,749,151	1,525,504
Unallocated corporate expenses	41,469	38,588	30,308
Total Company EBITDA As Defined	1,876,558	1,710,563	1,495,196
Depreciation and amortization	129,844	141,025	121,670
Interest expense, net	663,008	602,589	483,850
Acquisition-related costs	28,450	31,191	57,699
Stock compensation expense	58,481	45,524	48,306
Refinancing costs	6,396	39,807	15,794
Other, net	4,822	12,997	(239)
Income from continuing operations before income taxes	\$ 985,557	\$ 837,430	\$ 768,116

The following table presents capital expenditures and depreciation and amortization by segment (in thousands):

	Fiscal Years Ended September 30,		
	2018	2017	2016
Capital expenditures			
Power & Control	\$ 38,762	\$ 32,424	\$ 25,120
Airframe	32,028	34,526	16,498
Non-aviation	2,156	3,981	2,169
Corporate	395	82	195
	\$ 73,341	\$ 71,013	\$ 43,982
Depreciation and amortization			
Power & Control	\$ 67,721	\$ 85,681	\$ 65,488
Airframe	55,732	51,440	52,198
Non-aviation	5,276	2,745	2,860
Corporate	1,115	1,159	1,124
	\$ 129,844	\$ 141,025	\$ 121,670

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

	September 30, 2018	September 30, 2017
Total assets		
Power & Control	\$ 5,698,524	\$ 5,135,459
Airframe	4,091,011	3,923,172
Non-aviation	234,770	224,936
Corporate	2,173,162	614,594
Assets of discontinued operations	—	77,500
	\$ 12,197,467	\$ 9,975,661

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

17. STOCK-BASED COMPENSATION

The Company's stock compensation plans are designed to assist the Company in attracting, retaining, motivating and rewarding key employees, directors or consultants, and promoting the creation of long-term value for stockholders by closely

aligning the interests of these individuals with those of the Company's stockholders. The Company's stock compensation plans provide for the granting of stock options and other stock-based incentives.

Non-cash stock compensation expense recognized by the Company during the fiscal years ended September 30, 2018, 2017 and 2016 was \$58.5 million, \$45.5 million and \$48.3 million, respectively.

The weighted-average grant date fair value of options granted during the fiscal years ended September 30, 2018, 2017 and 2016 was \$81.04, \$67.11 and \$57.47, respectively.

Compensation expense is recognized based upon probability assessments of awards that are expected to vest in future periods. Such probability assessments are subject to revision and, therefore, unrecognized compensation expense is subject to future changes in estimate. As of September 30, 2018, there was approximately \$74.3 million of total unrecognized compensation expense related to non-vested awards expected to vest, which is expected to be recognized over a weighted-average period of 2.5 years.

The fair value of the Company's employee stock options was estimated at the date of grant using a Black-Scholes-Merton option-pricing model with the following weighted average assumptions for all options granted during the fiscal years ended:

	Fiscal Years Ended September 30,		
	2018	2017	2016
Risk-free interest rate	2.01% to 2.84%	1.56% to 2.01%	1.33% to 1.73%
Expected life of options	5.2 years	5.0 years	5.0 years
Expected dividend yield of stock	—	—	—
Expected volatility of stock	25%	25%	25%

The risk-free interest rate is based upon the Treasury bond rates as of the grant date. The average expected life of stock-based awards is based on the Company's actual historical exercise experience. Expected volatility of stock was calculated using a rate based upon the historical volatility of TransDigm's common stock. Notwithstanding the special cash dividends declared and paid from time to time, the Company historically has not declared and paid regular cash dividends and does not anticipate declaring and paying regular cash dividends in future periods; thus, no dividend rate assumption is used.

The total fair value of options vested during fiscal years ended September 30, 2018, 2017 and 2016 was \$44.4 million, \$42.9 million and \$36.6 million, respectively.

2014 Stock Option Plan

In July 2014, the Board of Directors of TD Group adopted a new stock option plan, which was subsequently approved by stockholders on October 2, 2014. The 2014 stock option plan permits TD Group to award our key employees, directors or consultants stock options. The total number of shares of TD Group common stock reserved for issuance or delivery under the 2014 stock option plan is 5,000,000, subject to adjustment in the event of any stock dividend or split, reorganization, recapitalization, merger, share exchange or any other similar corporate transaction or event.

Performance Vested Stock Options—All of the options granted through September 30, 2018 under the 2014 stock option plan have been pursuant to an equity incentive program adopted by the Company in 2008. Under the 2008 equity incentive program, all of the options granted will vest based on the Company's achievement of established operating performance goals. The following table summarizes the activity, pricing and other information for the Company's performance vested stock-based award activity during the fiscal year ended September 30, 2018:

	Number of Options	Weighted-Average Exercise Price Per Option	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at September 30, 2017	862,059	\$ 260.20		
Granted	1,411,399	297.07		
Exercised	(9,570)	255.07		
Forfeited	(148,910)	274.43		
Expired	(1,700)	269.42		
Outstanding at September 30, 2018	2,113,278	\$ 283.84	8.8 years	\$ 186,943,914
Expected to vest	1,064,431	\$ 283.53	8.8 years	\$ 94,486,726
Exercisable at September 30, 2018	355,333	\$ 275.41	8.5 years	\$ 34,428,384

At September 30, 2018, there were 2,876,222 remaining shares available for award under TD Group's 2014 stock option plan.

2006 Stock Incentive Plan

In conjunction with the consummation of the Company's initial public offering, a 2006 stock incentive plan was adopted by TD Group. In July 2008 and March 2011, the plan was amended to increase the number of shares available for issuance thereunder. TD Group reserved 8,119,668 shares of its common stock for issuance to key employees, directors or consultants under the plan. Awards under the plan were in the form of options, restricted stock or other stock-based awards. Options granted under the plan expire no later than the tenth anniversary of the applicable date of grant of the options, and have an exercise price of not less than the fair market value of our common stock on the date of grant. Restricted stock granted under the plan vested over three years.

Restricted Stock—The Company granted 17,700 restricted stock units with a weighted-average grant date fair value of \$189.97 during the fiscal year ended September 30, 2015. During the fiscal year ended September 30, 2018, 4,333 restricted stock units vested and 1,567 restricted stock units forfeited. No restricted stock units were outstanding at September 30, 2018.

Performance Vested Stock Options—All of the options granted under the 2006 stock incentive plan have been pursuant to an equity incentive program adopted by the Company in 2008. Under the 2008 equity incentive program, all of the options granted vest based on the Company's achievement of established operating performance goals. The following table summarizes the activity, pricing and other information for the Company's performance vested stock-based award activity during the fiscal year ended September 30, 2018:

	Number of Options	Weighted-Average Exercise Price Per Option	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at September 30, 2017	4,786,114	\$ 135.95		
Granted	—	—		
Exercised	(792,952)	69.37		
Forfeited	(115,035)	205.81		
Expired	—	—		
Outstanding at September 30, 2018	3,878,127	\$ 147.50	4.6 years	\$ 871,815,253
Expected to vest	672,123	\$ 212.01	6.7 years	\$ 107,735,342
Exercisable at September 30, 2018	3,085,780	\$ 131.25	4.1 years	\$ 743,827,783

The 2006 stock incentive plan expired on March 14, 2016 and no further shares were granted under the plan thereafter.

2003 Stock Option Plan

Certain executives and key employees of the Company were granted stock options under TD Group's 2003 stock option plan. Upon the closing of the acquisition of the Company by Warburg Pincus in 2003, certain employees rolled over certain then-existing options to purchase shares of common stock of TransDigm Holdings. These employees were granted rollover options to purchase an aggregate of 3,870,152 shares of common stock of TD Group (after giving effect to the 149.60 for 1.00 stock split effected on March 14, 2006). All rollover options granted were fully vested on the date of grant. In addition to shares of common stock reserved for issuance upon the exercise of rollover options, an aggregate of 5,469,301 shares of TD Group's common stock were reserved for issuance upon the exercise of new management options. In general, approximately 20% of all new management options vested based on employment service or a change in control. These time vested options had a graded vesting schedule of up to four years. Approximately 80% of all new management options vested (i) based upon the satisfaction of specified performance criteria, which is annual and cumulative EBITDA As Defined targets through 2008, or (ii) upon the occurrence of a change in control if the Investor Group (defined as Warburg Pincus and the other initial investors in TD Group) received a minimum specified rate of return. Unless terminated earlier, the options expire ten years from the date of grant.

TD Group reserved a total of 9,339,453 shares of its common stock for issuance to the Company's employees under the plan, which had all been issued as of September 30, 2013.

Time Vested Stock Options—During the fiscal year ended September 30, 2016, 5,486 of the Company's time vested stock-based options, with a weighted-average exercise price per option of \$39.88, were exercised. There were no remaining options outstanding as of September 30, 2016.

Performance Vested Stock Options—The following table summarizes the activity, pricing and other information for the Company’s performance vested stock-based award activity during the fiscal year ended September 30, 2018:

	Number of Options	Weighted-Average Exercise Price Per Option	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at September 30, 2017	77,829	\$ 130.09		
Granted	—	—		
Exercised	—	—		
Outstanding at September 30, 2018	77,829	\$ 130.09	4.1 years	\$ 18,850,962
Exercisable at September 30, 2018	77,829	\$ 130.09	4.1 years	\$ 18,850,962

The total intrinsic value of time, performance and rollover options exercised during the fiscal years ended September 30, 2018, 2017 and 2016 was \$192.5 million, \$61.1 million and \$133.2 million, respectively.

In addition to shares issued pursuant to options exercised, during the fiscal year ended September 30, 2018, 1,072 shares of common stock were issued with a weighted-average grant date fair value of \$335.13 as payment to directors in lieu of cash.

Dividend Equivalent Plans

Pursuant to the Third Amended and Restated TransDigm Group Incorporated 2003 Stock Option Plan Dividend Equivalent Plan, the Second Amended and Restated TransDigm Group Incorporated 2006 Stock Incentive Plan Dividend Equivalent Plan and the 2014 Stock Option Plan Dividend Equivalent Plan, all of the options granted under the 2003 stock option plan, the 2006 stock incentive plan and the 2014 stock option plan are entitled to certain dividend equivalent payments in the event of the declaration of a dividend by the Company.

Dividend equivalent payments on vested options were \$56.1 million, \$19.5 million and \$3.0 million during the years ended September 30, 2018, 2017 and 2016, respectively. At September 30, 2018, there was \$24.2 million recorded in accrued liabilities and \$32.2 million accrued in other non-current liabilities on the consolidated balance sheets related to the future dividend equivalent payments.

18. LEASES

TransDigm leases certain manufacturing facilities, offices, equipment and vehicles. Such leases, some of which are noncancelable and, in many cases, include renewals, expire at various dates. Rental expense during the fiscal years ended September 30, 2018, 2017 and 2016 was \$19.2 million, \$19.0 million and \$18.3 million, respectively.

Future minimum rental commitments at September 30, 2018 under operating leases having initial or remaining non-cancelable lease terms exceeding one year are \$19.3 million in fiscal 2019, \$16.3 million in fiscal 2020, \$13.9 million in fiscal 2021, \$12.2 million in fiscal 2022, \$9.7 million in fiscal 2023, and \$27.1 million thereafter.

19. FAIR VALUE MEASUREMENTS

The following tables present 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	September 30, 2018		September 30, 2017	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Assets:					
Cash and cash equivalents	1	\$ 2,073,017	\$ 2,073,017	\$ 650,561	\$ 650,561
Interest rate cap agreements ⁽¹⁾	2	36,160	36,160	12,904	12,904
Interest rate swap agreements ⁽²⁾	2	11,634	11,634	—	—
Interest rate swap agreements ⁽¹⁾	2	61,126	61,126	2,905	2,905
Liabilities:					
Interest rate swap agreements ⁽³⁾	2	528	528	20,740	20,740
Interest rate swap agreements ⁽⁴⁾	2	142	142	9,731	9,731
Short-term borrowings - trade receivable securitization facility ⁽⁵⁾	1	299,519	299,519	299,587	299,587
<i>Long-term debt, including current portion:</i>					
Term loans ⁽⁵⁾	2	7,509,205	7,607,323	6,889,957	6,965,628
5.50% 2020 Notes ⁽⁵⁾	1	547,813	548,625	546,757	558,250
6.00% 2022 Notes ⁽⁵⁾	1	1,144,499	1,155,750	1,143,059	1,178,750
6.50% 2024 Notes ⁽⁵⁾	1	1,193,134	1,215,000	1,191,958	1,236,000
6.50% 2025 Notes ⁽⁵⁾	1	750,131	757,500	750,149	776,807
6.375% 2026 Notes ⁽⁵⁾	1	942,202	942,875	941,194	971,375
6.875% 2026 Notes ⁽⁵⁾	1	490,779	507,500	—	—

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

(2) Included in prepaid expenses and other on the consolidated balance sheet.

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

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

(5) The carrying amount of the debt instrument is presented net of the debt issuance costs. Refer to Note 11, "Debt", for gross carrying amounts.

The Company values its financial instruments using an industry standard market approach, in which prices and other relevant information is 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 September 30, 2018 and 2017.

20. 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 income (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. As the interest rate swap and cap agreements are used to manage interest rate risk, any gains or losses from the derivative instruments that are reclassified into earnings are recognized in interest expense - net in the consolidated statements of income.

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

Aggregate Notional Amount (in millions)	Start Date	End Date	Related Term Loans	Conversion of Related Variable Rate Debt to Fixed Rate of:
\$750	3/31/2016	6/30/2020	Tranche E	5.3% (2.8% plus the 2.5% margin percentage)
\$500	6/29/2018	3/31/2025	Tranche E	5.5% (3.0% plus the 2.5% margin percentage)
\$750	6/30/2020	6/30/2022	Tranche E	5.0% (2.5% plus the 2.5% margin percentage)
\$1,500	6/30/2022	3/31/2025	Tranche E	5.6% (3.1% plus the 2.5% margin percentage)
\$1,000	9/30/2014	6/28/2019	Tranche F	4.9% (2.4% plus the 2.5% margin percentage)
\$1,000	6/28/2019	6/30/2021	Tranche F	4.3% (1.8% plus the 2.5% margin percentage)
\$1,400	6/30/2021	3/31/2023	Tranche F	5.5% (3.0% plus the 2.5% margin percentage)
\$500	12/30/2016	12/31/2021	Tranche G	4.4% (1.9% plus the 2.5% margin percentage)
\$400	9/30/2017	9/30/2022	Tranche G	4.4% (1.9% plus the 2.5% margin percentage)
\$900	12/31/2021	6/28/2024	Tranche G	5.6% (3.1% plus the 2.5% margin percentage)
\$400	9/30/2022	6/28/2024	Tranche G	5.5% (3.0% plus the 2.5% 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:
\$750	9/30/2015	6/30/2020	Tranche E	Three month LIBO rate of 2.5%
\$750	6/30/2020	6/30/2022	Tranche E	Three month LIBO rate of 2.5%
\$400	6/30/2016	6/30/2021	Tranche F	Three month LIBO rate of 2.0%
\$400	12/30/2016	12/30/2021	Tranche G	Three month LIBO rate of 2.5%

All interest rate swap and cap agreements are recognized in our consolidated balance sheets at fair value. 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 non-current asset or liability. The amounts shown in the table below represent the gross amounts of recognized assets and liabilities, the amounts offset in the consolidated balance sheet and the net amounts of assets and liabilities presented therein.

	September 30, 2018		September 30, 2017	
	Asset	Liability	Asset	Liability
Interest rate cap agreements	\$ 36,160	\$ —	\$ 12,904	\$ —
Interest rate swap agreements	72,090	—	9,235	(36,801)
Total	108,250	—	22,139	(36,801)
Effect of counterparty netting	670	(670)	(6,330)	6,330
Net derivatives as classified in the balance sheet ⁽¹⁾	\$ 108,920	\$ (670)	\$ 15,809	\$ (30,471)

(1) Refer to Note 19, "Fair Value Measurements," for the 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 September 30, 2018, 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 \$7.3 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 Second Amended and Restated Credit Agreement. Accordingly, amounts previously recorded as a component of accumulated other comprehensive income (loss) in stockholder's deficit amortized into interest expense was \$4.0 million and \$3.8 million for the fiscal years ended September 30, 2018 and 2017, respectively. The accumulated other comprehensive income to be reclassified into interest expense over the remaining term of the cap agreements is \$11.0 million with a related tax benefit of \$2.6 million as of September 30, 2018.

Effective December 30, 2017, the Company redesignated the existing interest rate swap agreements related to the \$750 million, \$500 million, \$1,000 million and \$750 million aggregate notional amounts with swap rates of 5.0%, 4.4%, 4.3% and 5.3%, respectively, based on the expected probable cash flows associated with certain term loans in consideration of the Company's removal of the LIBO rate floor on the certain term loans as set forth in Amendment No. 4 to the Second Amended and Restated Credit Agreement. Accordingly, the amount recorded as a component of accumulated other comprehensive income in stockholders' deficit related to these redesignated interest rate swap hedges will be amortized into earnings based on the original maturity date of the related interest rate swap agreements. Amounts previously recorded as a component of accumulated other comprehensive income in stockholder's deficit amortized into interest expense was \$0.8 million for the fiscal year ended September 30, 2018. The accumulated other comprehensive income to be reclassified into interest expense over the remaining term of the swap agreements is immaterial.

Effective March 31, 2018, the Company redesignated the existing interest rate swap agreements related to the \$1,000 million and the \$400 million aggregate notional amount with swap rates of 4.9% and 4.4%, respectively, based on the expected probable cash flows associated with certain term loans in consideration of the Company's removal of the LIBO rate floor on the certain term loans as set forth in the refinancing facility agreement dated February 22, 2018 related to the Second Amended and Restated Credit Agreement. Accordingly, the amount recorded as a component of accumulated other comprehensive income in stockholders' deficit related to these redesignated interest rate swap hedges will be amortized into earnings based on the original maturity date of the related interest rate swap agreements. Amounts previously recorded as a component of accumulated other comprehensive income in stockholder's deficit amortized into interest income was \$1.4 million for the fiscal year ended September 30, 2018. The accumulated other comprehensive income to be reclassified into interest income over the remaining term of the swaps agreements is \$11.4 million with a related tax expense of \$2.7 million as of September 30, 2018.

21. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The following table presents the components of “Accumulated other comprehensive income (loss)” (“AOCI”) in the consolidated balance sheets, net of taxes, for the fiscal years ended September 30, 2018, 2017 and 2016 (in thousands):

	Unrealized (loss) gain on derivatives designated and qualifying as cash flow hedges ⁽²⁾	Defined benefit pension plan activity ⁽³⁾	Currency translation adjustment	Total
Balance at September 30, 2016	\$ (61,140)	\$ (24,297)	\$ (64,350)	\$ (149,787)
Other comprehensive gain before reclassification	32,072	7,932	22,241	62,245
Amounts reclassified from AOCI related to interest rate swap agreements ⁽¹⁾	2,399	—	—	2,399
Net current-period other comprehensive gain	\$ 34,471	\$ 7,932	\$ 22,241	\$ 64,644
Balance at September 30, 2017	\$ (26,669)	\$ (16,365)	\$ (42,109)	\$ (85,143)
Other comprehensive gain (loss) before reclassification	91,226	5,636	(10,253)	86,609
Amounts reclassified from AOCI related to interest rate swap agreements ⁽¹⁾	2,634	—	—	2,634
Net current-period other comprehensive gain (loss)	\$ 93,860	\$ 5,636	\$ (10,253)	\$ 89,243
Balance at September 30, 2018	\$ 67,191	\$ (10,729)	\$ (52,362)	\$ 4,100

(1) This component of AOCI is included in interest expense (see Note 20, “Derivatives and Hedging Activities,” for additional details).

(2) Unrealized (loss) gain represents interest rate swap and cap agreements, net of taxes of \$(33,923), \$(20,663) and \$6,868 for the fiscal years ended September 30, 2018, 2017 and 2016, respectively.

(3) Defined benefit pension plan activity represent pension liability adjustments, net of taxes of \$(1,487), \$(4,130) and \$6,017, respectively.

A summary of reclassifications out of AOCI for the fiscal years ended September 30, 2018 and 2017 is provided below (in thousands):

Description of reclassifications out of accumulated other comprehensive income (loss)	Amount Reclassified	
	Fiscal Years Ended September 30, 2018	2017
Amortization from redesignated interest rate swap and cap agreements ⁽¹⁾	\$ 3,443	\$ 3,829
Deferred tax benefit from redesignated interest rate swap and cap agreements	(809)	(1,430)
Losses reclassified into earnings, net of tax	\$ 2,634	\$ 2,399

(1) This component of AOCI is included in interest expense (see Note 20, “Derivatives and Hedging Activity,” for additional information).

22. DISCONTINUED OPERATIONS

In connection with the settlement of a Department of Justice investigation into the competitive effects of the acquisition, during the fourth quarter of 2017, the Company committed to dispose of the Schroth business. Therefore, Schroth was classified as held-for-sale as of September 30, 2017. The results of operations of Schroth are reflected as discontinued operations in the accompanying consolidated financial statements for all periods presented. On January 26, 2018, the Company completed the sale of Schroth in a management buyout to a private equity fund and certain members of Schroth management for approximately \$61.4 million, which includes a working capital adjustment of \$0.3 million that was settled on July 6, 2018. The Company previously acquired Schroth in February 2017 (refer to Note 2, “Acquisitions and Divestitures”).

The loss from discontinued operations was \$4.5 million and \$31.7 million in the consolidated statements of income for the fiscal years ended September 30, 2018 and 2017, respectively. Previously, in the fourth quarter of fiscal 2017, the Company recorded a \$32.0 million impairment charge to write down the Schroth assets to fair value. The impairment charge was based on an internal assessment of the recovery of Schroth’s assets. The following is the summarized operating results for Schroth for the years ended September 30, 2018 and 2017 (in thousands):

	Fiscal Years Ended September 30,	
	2018	2017
Net sales	\$ 11,808	\$ 24,590
Income (loss) from discontinued operations before income taxes	354	(5,709)
Loss on classification as held-for-sale before income taxes	—	(32,000)
Income tax benefit	2,016	6,055
Income (loss) from discontinued operations, net of tax	2,370	(31,654)
Net loss of sale of discontinued operations, net of tax	(6,844)	—
Loss from discontinued operations	\$ (4,474)	\$ (31,654)

23. QUARTERLY FINANCIAL DATA (UNAUDITED)

	First Quarter Ended December 30, 2017	Second Quarter Ended March 31, 2018	Third Quarter Ended June 30, 2018	Fourth Quarter Ended September 30, 2018
	(in thousands, except per share amounts)			
Fiscal Year Ended September 30, 2018⁽¹⁾				
Net sales ⁽²⁾	\$ 847,960	\$ 933,070	\$ 980,662	\$ 1,049,434
Gross profit ⁽²⁾	476,650	534,074	569,520	597,266
Income from continuing operations ⁽²⁾	312,011	201,840	217,391	230,294
Loss from discontinued operations ⁽²⁾	2,764	(5,562)	(145)	(1,531)
Net income ⁽²⁾	314,775	196,278	217,246	228,763
Net earnings per share from continuing operations—basic and diluted ⁽³⁾	\$ 4.60	\$ 3.63	\$ 3.91	\$ 4.14
Net earnings (loss) per share from discontinued operations—basic and diluted ⁽³⁾	0.05	(0.10)	—	(0.03)
Net earnings per share—basic and diluted ⁽³⁾	\$ 4.65	\$ 3.53	\$ 3.91	\$ 4.11

	First Quarter Ended December 31, 2016	Second Quarter Ended April 1, 2017	Third Quarter Ended July 1, 2017	Fourth Quarter Ended September 30, 2017
(in thousands, except per share amounts)				
Fiscal Year Ended September 30, 2017⁽¹⁾				
Net sales ⁽²⁾	\$ 814,018	\$ 868,728	\$ 897,655	\$ 923,885
Gross profit ⁽²⁾	444,255	489,437	519,696	531,239
Income from continuing operations ⁽²⁾	118,871	155,691	169,832	184,147
Loss from discontinued operations ⁽²⁾	—	(186)	(779)	(30,689)
Net income ⁽²⁾	<u>118,871</u>	<u>155,505</u>	<u>169,053</u>	<u>153,458</u>
Net earnings per share from continuing operations—basic and diluted	\$ 0.41	\$ 2.78	\$ 3.09	\$ 2.21
Net loss per share from discontinued operations —basic and diluted	—	—	(0.01)	(0.56)
Net earnings per share—basic and diluted ⁽³⁾	<u>\$ 0.41</u>	<u>\$ 2.78</u>	<u>\$ 3.08</u>	<u>\$ 1.65</u>

- (1) Results adjusted to reflect amounts reclassified to discontinued operations due to the Company's classification of Schroth as discontinued operations at September 30, 2017. See Note 22, "Discontinued Operations," for additional information.
- (2) The Company's operating results include the results of operations of acquisitions from the effective date of each acquisition. See Note 2 "Acquisitions," for additional details.
- (3) The sum of the earnings per share for the four quarters in a year does not necessarily equal the total year earnings per share.

24. SUBSEQUENT EVENTS

On October 1, 2018, Extant completed the acquisition of substantially all of the assets and technical data rights from the Corona, California operations of NavCom Defense Electronics, Inc. ("NavCom") for approximately \$27 million in cash. NavCom is a product line of Extant and therefore will be included in TransDigm's Power and Control segment.

On October 9, 2018, the Company entered into a merger agreement with Esterline, under which the Company agreed to acquire Esterline. Under the terms of the merger agreement, the Company will purchase each share of Esterline common stock outstanding for \$122.50 per share in cash. TransDigm anticipates that the total transaction value will be approximately \$4 billion, representing the \$122.50 price paid per share for common stock outstanding plus existing debt. The Company expects the acquisition to be financed primarily through existing cash on hand and the incurrence of new term loans. In connection with the merger agreement, the Company entered into a commitment letter for a senior secured term facility up to \$3.7 billion. The actual amount and timing of the new senior secured term facility is subject to the closing of the Esterline acquisition and the cash on hand at that time. The Company currently expects that the merger will be completed in 2019, subject to approval of Esterline's shareholders, as well as other customary closing conditions, including the receipt of required regulatory approvals.

25. SUPPLEMENTAL GUARANTOR INFORMATION

TransDigm Inc.'s 2020 Notes, 2022 Notes, 2024 Notes, 2025 Notes and 6.375% 2026 Notes are jointly and severally guaranteed, on a senior subordinated basis, by TD Group, TransDigm UK Holdings plc ("TransDigm UK") and TransDigm Inc.'s Domestic Restricted Subsidiaries, as defined in the applicable Indentures. TransDigm UK's 6.875% 2026 Notes are jointly and severally guaranteed, on a senior subordinated basis, by TD Group, TransDigm Inc. and TransDigm Inc.'s Domestic Restricted Subsidiaries as defined in the applicable indenture. The following supplemental condensed consolidating financial information presents, in separate columns, the balance sheets of the Company as of September 30, 2018 and September 30, 2017 and its statements of income and comprehensive income and cash flows for the fiscal years ended September 30, 2018, 2017 and 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, excluding TransDigm UK, (iii) TransDigm UK (iv) the Subsidiary Guarantors (other than TransDigm UK) on a combined basis, (v) Non-Guarantor Subsidiaries and (vi) 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 6.375% 2026 Notes are fully and unconditionally guaranteed on a senior subordinated basis by TD Group, TransDigm UK and all of TransDigm Inc.'s Domestic Restricted Subsidiaries and because TD Group has no significant operations or assets separate from its investment in TransDigm Inc.

Separate financial statements of TransDigm UK are not presented because TransDigm UK's 6.875% 2026 Notes, issued in May 2018, are fully and unconditionally guaranteed on a senior subordinated basis by TD Group, TransDigm Inc. and all of TransDigm Inc.'s Domestic Restricted Subsidiaries.

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF SEPTEMBER 30, 2018
(Amounts in Thousands)

	TransDigm Group	TransDigm Inc.	Transdigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
ASSETS							
CURRENT ASSETS:							
Cash and cash equivalents	\$ 389	\$ 1,821,437	\$ 125	\$ (1,763)	\$ 252,829	\$ —	\$ 2,073,017
Trade accounts receivable— Net	—	—	—	40,916	663,394	—	704,310
Inventories—Net	—	45,262	—	648,574	115,913	(4,457)	805,292
Prepaid expenses and other	—	16,231	—	47,020	11,417	—	74,668
Total current assets	389	1,882,930	125	734,747	1,043,553	(4,457)	3,657,287
INVESTMENT IN SUBSIDIARIES AND INTERCOMPANY BALANCES	(1,808,860)	10,459,497	1,099,886	8,928,726	2,160,236	(20,839,485)	—
PROPERTY, PLANT AND EQUIPMENT—Net	—	15,562	—	319,567	53,204	—	388,333
GOODWILL	—	97,002	—	5,466,148	660,140	—	6,223,290
OTHER INTANGIBLE ASSETS— Net	—	31,362	—	1,514,983	242,059	—	1,788,404
DERIVATIVE ASSETS	—	97,286	—	—	—	—	97,286
OTHER	—	7,347	—	29,805	5,715	—	42,867
TOTAL ASSETS	\$ (1,808,471)	\$ 12,590,986	\$ 1,100,011	\$ 16,993,976	\$ 4,164,907	\$ (20,843,942)	\$ 12,197,467
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)							
CURRENT LIABILITIES:							
Current portion of long-term debt	\$ —	\$ 75,817	\$ —	\$ —	\$ —	\$ —	\$ 75,817
Short-term borrowings—trade receivable securitization facility	—	—	—	—	299,519	—	299,519
Accounts payable	—	18,470	—	115,735	39,398	—	173,603
Accrued liabilities	—	118,600	13,274	162,618	56,951	—	351,443
Total current liabilities	—	212,887	13,274	278,353	395,868	—	900,382
LONG-TERM DEBT	—	12,011,166	490,780	—	—	—	12,501,946
DEFERRED INCOME TAXES	—	345,357	—	(2,329)	56,468	—	399,496
OTHER NON-CURRENT LIABILITIES	—	77,573	—	104,829	21,712	—	204,114
Total liabilities	—	12,646,983	504,054	380,853	474,048	—	14,005,938
STOCKHOLDERS' (DEFICIT) EQUITY	(1,808,471)	(55,997)	595,957	16,613,123	3,690,859	(20,843,942)	(1,808,471)
TOTAL LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY	\$ (1,808,471)	\$ 12,590,986	\$ 1,100,011	\$ 16,993,976	\$ 4,164,907	\$ (20,843,942)	\$ 12,197,467

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF SEPTEMBER 30, 2017
(Amounts in Thousands)

	TransDigm Group	TransDigm Inc.	TransDigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
ASSETS							
CURRENT ASSETS:							
Cash and cash equivalents	\$ 2,416	\$ 439,473	\$ —	\$ (203)	\$ 208,875	\$ —	\$ 650,561
Trade accounts receivable—Net	—	—	—	25,069	652,807	(41,749)	636,127
Inventories—Net	—	47,051	—	571,712	114,018	(2,100)	730,681
Assets held-for-sale	—	—	—	6,428	71,072	—	77,500
Prepaid expenses and other	—	4,746	—	24,141	9,796	—	38,683
Total current assets	2,416	491,270	—	627,147	1,056,568	(43,849)	2,133,552
INVESTMENT IN SUBSIDIARIES AND INTERCOMPANY BALANCES							
	(2,953,620)	10,263,999	—	7,599,210	966,675	(15,876,264)	—
PROPERTY, PLANT AND EQUIPMENT—Net							
	—	16,032	—	261,434	47,458	—	324,924
GOODWILL							
	—	85,905	—	4,996,034	663,399	—	5,745,338
OTHER INTANGIBLE ASSETS— Net							
	—	27,620	—	1,438,006	252,236	—	1,717,862
DERIVATIVE ASSETS							
	—	15,809	—	—	—	—	15,809
OTHER							
	—	4,507	—	27,567	6,102	—	38,176
TOTAL ASSETS	\$ (2,951,204)	\$ 10,905,142	\$ —	\$ 14,949,398	\$ 2,992,438	\$ (15,920,113)	\$ 9,975,661
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)							
CURRENT LIABILITIES:							
Current portion of long-term debt	\$ —	\$ 69,454	\$ —	\$ —	\$ —	\$ —	\$ 69,454
Short-term borrowings—trade receivable securitization facility	—	—	—	—	299,587	—	299,587
Accounts payable	—	14,712	—	137,948	37,667	(41,566)	148,761
Accrued liabilities	—	180,916	—	103,902	51,070	—	335,888
Liabilities held-for-sale	—	—	—	—	17,304	—	17,304
Total current liabilities	—	265,082	—	241,850	405,628	(41,566)	870,994
LONG-TERM DEBT							
	—	11,393,620	—	—	—	—	11,393,620
DEFERRED INCOME TAXES							
	—	442,415	—	(99)	58,633	—	500,949
OTHER NON-CURRENT LIABILITIES							
	—	61,347	—	73,245	26,710	—	161,302
Total liabilities	—	12,162,464	—	314,996	490,971	(41,566)	12,926,865
STOCKHOLDERS' (DEFICIT) EQUITY							
	(2,951,204)	(1,257,322)	—	14,634,402	2,501,467	(15,878,547)	(2,951,204)
TOTAL LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY	\$ (2,951,204)	\$ 10,905,142	\$ —	\$ 14,949,398	\$ 2,992,438	\$ (15,920,113)	\$ 9,975,661

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF INCOME AND COMPREHENSIVE INCOME
FOR THE YEAR ENDED SEPTEMBER 30, 2018
(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	TransDigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
NET SALES	\$ —	\$ 163,348	\$ —	\$ 3,118,032	\$ 610,688	\$ (80,942)	\$ 3,811,126
COST OF SALES	—	94,387	—	1,253,018	367,153	(80,942)	1,633,616
GROSS PROFIT	—	68,961	—	1,865,014	243,535	—	2,177,510
SELLING AND ADMINISTRATIVE EXPENSES	—	108,687	—	269,452	71,956	—	450,095
AMORTIZATION OF INTANGIBLE ASSETS	—	1,261	—	62,915	8,278	—	72,454
(LOSS) INCOME FROM OPERATIONS	—	(40,987)	—	1,532,647	163,301	—	1,654,961
INTEREST EXPENSE (INCOME)—Net	—	678,155	6,943	1,308	(23,398)	—	663,008
REFINANCING COSTS	—	6,300	96	—	—	—	6,396
EQUITY IN INCOME OF SUBSIDIARIES	(957,062)	(1,306,511)	—	—	—	2,263,573	—
INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	957,062	581,069	(7,039)	1,531,339	186,699	(2,263,573)	985,557
INCOME TAX PROVISION	—	(375,993)	—	379,665	20,349	—	24,021
INCOME FROM CONTINUING OPERATIONS	957,062	957,062	(7,039)	1,151,674	166,350	(2,263,573)	961,536
LOSS FROM DISCONTINUED OPERATIONS, NET OF TAX	—	—	—	(2,427)	(2,047)	—	(4,474)
NET INCOME	\$ 957,062	\$ 957,062	\$ (7,039)	\$ 1,149,247	\$ 164,303	\$ (2,263,573)	\$ 957,062
OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX	89,243	95,076	—	8,491	(17,837)	(85,730)	89,243
TOTAL COMPREHENSIVE INCOME	\$ 1,046,305	\$ 1,052,138	\$ (7,039)	\$ 1,157,738	\$ 146,466	\$ (2,349,303)	\$ 1,046,305

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF INCOME AND COMPREHENSIVE INCOME
FOR THE YEAR ENDED SEPTEMBER 30, 2017
(Amounts in Thousands)

	TransDigm Group	TransDigm Inc.	TransDigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
NET SALES	\$ —	\$ 143,631	\$ —	\$ 2,911,950	\$ 535,129	\$ (86,424)	\$ 3,504,286
COST OF SALES	—	79,403	—	1,191,770	333,985	(85,499)	1,519,659
GROSS PROFIT	—	64,228	—	1,720,180	201,144	(925)	1,984,627
SELLING AND ADMINISTRATIVE EXPENSES	69	97,677	—	284,819	33,010	—	415,575
AMORTIZATION OF INTANGIBLE ASSETS	—	1,003	—	80,053	8,170	—	89,226
(LOSS) INCOME FROM OPERATIONS	(69)	(34,452)	—	1,355,308	159,964	(925)	1,479,826
INTEREST EXPENSE (INCOME)— Net	—	614,353	—	(1,248)	(10,516)	—	602,589
REFINANCING COSTS	—	39,807	—	—	—	—	39,807
EQUITY IN INCOME OF SUBSIDIARIES	(596,956)	(1,318,945)	—	—	—	1,915,901	—
INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	596,887	630,333	—	1,356,556	170,480	(1,916,826)	837,430
INCOME TAX PROVISION	—	33,377	—	156,251	19,261	—	208,889
INCOME FROM CONTINUING OPERATIONS	596,887	596,956	—	1,200,305	151,219	(1,916,826)	628,541
LOSS FROM DISCONTINUED OPERATIONS, NET OF TAX	—	—	—	(9,496)	(22,158)	—	(31,654)
NET INCOME	\$ 596,887	\$ 596,956	\$ —	\$ 1,190,809	\$ 129,061	\$ (1,916,826)	\$ 596,887
OTHER COMPREHENSIVE INCOME (LOSS), NET OF TAX	64,644	31,603	—	16,310	58,856	(106,769)	64,644
TOTAL COMPREHENSIVE INCOME	\$ 661,531	\$ 628,559	\$ —	\$ 1,207,119	\$ 187,917	\$ (2,023,595)	\$ 661,531

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF INCOME AND COMPREHENSIVE INCOME
FOR THE YEAR ENDED SEPTEMBER 30, 2016
(Amounts in Thousands)

	TransDigm Group	TransDigm Inc.	TransDigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
NET SALES	\$ —	\$ 132,407	\$ —	\$ 2,580,091	\$ 486,198	\$ (27,285)	\$ 3,171,411
COST OF SALES	—	75,521	—	1,105,893	289,219	(27,285)	1,443,348
GROSS PROFIT	—	56,886	—	1,474,198	196,979	—	1,728,063
SELLING AND ADMINISTRATIVE EXPENSES	—	114,546	—	210,209	58,103	—	382,858
AMORTIZATION OF INTANGIBLE ASSETS	—	684	—	65,299	11,462	—	77,445
(LOSS) INCOME FROM OPERATIONS	—	(58,344)	—	1,198,690	127,414	—	1,267,760
INTEREST EXPENSE (INCOME)—Net	—	490,974	—	259	(7,383)	—	483,850
REFINANCING COSTS	—	15,794	—	—	—	—	15,794
EQUITY IN INCOME OF SUBSIDIARIES	(586,414)	(1,044,371)	—	—	—	1,630,785	—
INCOME BEFORE INCOME TAXES	586,414	479,259	—	1,198,431	134,797	(1,630,785)	768,116
INCOME TAX PROVISION	—	(107,155)	—	285,887	2,970	—	181,702
NET INCOME	\$ 586,414	\$ 586,414	\$ —	\$ 912,544	\$ 131,827	\$ (1,630,785)	\$ 586,414
OTHER COMPREHENSIVE (LOSS) INCOME, NET OF TAX	(53,778)	6,381	—	(9,598)	(39,461)	42,678	(53,778)
TOTAL COMPREHENSIVE INCOME (LOSS)	\$ 532,636	\$ 592,795	\$ —	\$ 902,946	\$ 92,366	\$ (1,588,107)	\$ 532,636

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED SEPTEMBER 30, 2018
(Amounts in thousands)

	TransDigm Group	TransDigm Inc.	TransDigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
NET CASH (USED IN) PROVIDED BY OPERATING ACTIVITIES	\$ —	\$ (386,152)	\$ 6,598	\$ 1,216,263	\$ 183,290	\$ 2,174	\$ 1,022,173
INVESTING ACTIVITIES:							
Capital expenditures	—	(2,001)	—	(61,896)	(9,444)	—	(73,341)
Payments made in connection with acquisitions	—	(667,619)	—	—	—	—	(667,619)
Proceeds in connection with sale of discontinued operations	—	57,383	—	—	—	—	57,383
Net cash used in investing activities	—	(612,237)	—	(61,896)	(9,444)	—	(683,577)
FINANCING ACTIVITIES:							
Intercompany activities	(3,462)	1,785,796	(496,081)	(1,155,927)	(128,152)	(2,174)	—
Proceeds from exercise of stock options	57,583	—	—	—	—	—	57,583
Dividends paid	(56,148)	—	—	—	—	—	(56,148)
Proceeds from term loans, net	—	12,779,694	—	—	—	—	12,779,694
Repayment on term loans	—	(12,174,305)	—	—	—	—	(12,174,305)
Proceeds from senior subordinated notes, net	—	—	489,608	—	—	—	489,608
Financing fees and other	—	(10,832)	—	—	—	—	(10,832)
Net cash (used in) provided by financing activities	(2,027)	2,380,353	(6,473)	(1,155,927)	(128,152)	(2,174)	1,085,600
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	—	—	—	—	(1,740)	—	(1,740)
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(2,027)	1,381,964	125	(1,560)	43,954	—	1,422,456
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	2,416	439,473	—	(203)	208,875	—	650,561
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 389	\$ 1,821,437	\$ 125	\$ (1,763)	\$ 252,829	\$ —	\$ 2,073,017

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED SEPTEMBER 30, 2017
(Amounts in Thousands)

	TransDigm Group	TransDigm Inc.	TransDigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
NET CASH (USED IN) PROVIDED BY OPERATING ACTIVITIES	\$ (69)	\$ (587,800)	\$ —	\$ 1,334,099	\$ 42,028	\$ 475	\$ 788,733
INVESTING ACTIVITIES:							
Capital expenditures	—	(1,984)	—	(63,305)	(5,724)	—	(71,013)
Payments made in connection with acquisitions	—	(136,295)	—	—	—	—	(136,295)
Payments made in connection with acquisition of discontinued operations	—	(79,695)	—	—	—	—	(79,695)
Net cash used in investing activities	—	(217,974)	—	(63,305)	(5,724)	—	(287,003)
FINANCING ACTIVITIES:							
Intercompany activities	2,939,121	(1,682,518)	—	(1,279,805)	23,677	(475)	—
Proceeds from exercise of stock options	21,177	—	—	—	—	—	21,177
Dividends paid	(2,581,552)	—	—	—	—	—	(2,581,552)
Treasury stock purchased	(389,821)	—	—	—	—	—	(389,821)
Proceeds from term loans, net	—	2,937,773	—	—	—	—	2,937,773
Repayment on term loans	—	(1,284,698)	—	—	—	—	(1,284,698)
Proceeds from senior subordinated notes, net	—	300,386	—	—	—	—	300,386
Cash tender and redemption of senior subordinated notes due 2021, including premium	—	(528,847)	—	—	—	—	(528,847)
Proceeds from trade receivable securitization facility, net	—	99,471	—	—	—	—	99,471
Financing fees and other	—	(17,571)	—	—	—	—	(17,571)
Net cash (used in) provided by financing activities	(11,075)	(176,004)	—	(1,279,805)	23,677	(475)	(1,443,682)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	—	—	—	—	5,519	—	5,519
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(11,144)	(981,778)	—	(9,011)	65,500	—	(936,433)
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	\$ 2,416	\$ 439,473	\$ —	\$ (203)	\$ 208,875	\$ —	\$ 650,561

TRANSDIGM GROUP INCORPORATED
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED SEPTEMBER 30, 2016
(Amounts in Thousands)

	TransDigm Group	TransDigm Inc.	TransDigm UK	Subsidiary Guarantors	Non-Guarantor Subsidiaries	Eliminations	Total Consolidated
NET CASH (USED IN) PROVIDED BY OPERATING ACTIVITIES	\$ —	\$ (230,931)	\$ —	\$ 944,152	\$ (25,496)	\$ (4,427)	\$ 683,298
INVESTING ACTIVITIES:							
Capital expenditures	—	(1,716)	—	(32,608)	(9,658)	—	(43,982)
Payments made in connection with acquisitions	—	(1,399,064)	—	—	—	—	(1,399,064)
Net cash used in investing activities	—	(1,400,780)	—	(32,608)	(9,658)	—	(1,443,046)
FINANCING ACTIVITIES:							
Intercompany activities	192,703	580,487	—	(910,647)	133,030	4,427	—
Proceeds from exercise of stock options	30,112	—	—	—	—	—	30,112
Dividends paid	(3,000)	—	—	—	—	—	(3,000)
Treasury stock purchased	(207,755)	—	—	—	—	—	(207,755)
Proceeds from term loans, net	—	1,711,515	—	—	—	—	1,711,515
Repayment on term loans	—	(834,409)	—	—	—	—	(834,409)
Proceeds from senior subordinated notes, net	—	939,584	—	—	—	—	939,584
Financing fees and other	—	(3,580)	—	—	—	—	(3,580)
Net cash provided by (used in) financing activities	12,060	2,393,597	—	(910,647)	133,030	4,427	1,632,467
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	—	—	—	—	242	—	242
NET INCREASE IN CASH AND CASH EQUIVALENTS	12,060	761,886	—	897	98,118	—	872,961
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	1,500	659,365	—	7,911	45,257	—	714,033
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 13,560	\$ 1,421,251	\$ —	\$ 8,808	\$ 143,375	\$ —	\$ 1,586,994

TRANSDIGM GROUP INCORPORATED
VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED SEPTEMBER 30, 2018, 2017, AND 2016
(Amounts in Thousands)

Column A	Column B	Column C		Column D	Column E
Description	Balance at Beginning of Period	Additions		Deductions from Reserve ⁽¹⁾	Balance at End of Period
		Charged to Costs and Expenses	Acquisitions		
Year Ended September 30, 2018					
Allowance for uncollectible accounts	\$ 3,819	\$ 1,498	\$ 989	\$ (1,632)	\$ 4,674
Reserve for excess and obsolete inventory	79,775	14,998	10,764	(11,039)	94,498
Valuation allowance for deferred tax assets	33,214	14,035	—	—	47,249
Year Ended September 30, 2017					
Allowance for uncollectible accounts	\$ 4,414	\$ 1,095	\$ 363	\$ (2,053)	\$ 3,819
Reserve for excess and obsolete inventory	80,039	17,361	4,254	(21,879)	79,775
Valuation allowance for deferred tax assets	27,286	5,928	—	—	33,214
Year Ended September 30, 2016					
Allowance for uncollectible accounts	\$ 3,801	\$ 1,043	\$ 724	\$ (1,154)	\$ 4,414
Reserve for excess and obsolete inventory	64,158	26,407	—	(10,526)	80,039
Valuation allowance for deferred tax assets	17,645	9,641	—	—	27,286

(1) The amounts in this column represent charge-offs net of recoveries and the impact of foreign currency translation adjustments.

EXHIBIT INDEX
TO FORM 10-K FOR THE YEAR ENDED SEPTEMBER 30, 2018

EXHIBIT NO.	DESCRIPTION
3.50	Amended and Restated Certificate of Incorporation of Aviation Technologies, Inc.
3.52	Certificate of Formation, effective June 29, 2007, of Avionic Instruments LLC
3.54	Articles of Incorporation, filed December 29, 1992, of Avionics Specialties, Inc.
3.81	Articles of Organization of CDA InterCorp LLC
3.95	Fourth Amended and Restated Limited Liability Agreement of Electromech Technologies LLC
3.96	Articles of Organization, as amended, of HarcoSemco LLC
3.97	First Amended and Restated Limited Liability Company Agreement of HarcoSemco LLC
3.104	Bylaws, as amended, of ILC Holdings, Inc.
3.139	Bylaws, as amended, of Skurka Aerospace Inc.
3.142	By-laws, as amended, of Tactair Fluid Controls, Inc.
3.148	Bylaws, as amended, of Texas Rotronics, Inc.
3.154	By-laws, as amended, of Young & Franklin Inc.
4.17	Fifteenth Supplemental Indenture, dated as of July 31, 2018, 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
4.30	Twelfth Supplemental Indenture, dated as of July 31, 2018, 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
4.43	Twelfth Supplemental Indenture, dated as of July 31, 2018, 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
4.55	Eleventh Supplemental Indenture, dated as of July 31, 2018, 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
4.64	Eighth Supplemental Indenture, dated as of July 31, 2018, 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
4.67	Second Supplemental Indenture, dated as of July 31, 2018, among TransDigm UK Holdings plc, as issuer, TransDigm Group Incorporated and TransDigm Inc., as guarantors, the subsidiary guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee
10.6	Third Amended and Restated Employment Agreement, dated November 6, 2018, between TransDigm Group Incorporated and Robert Henderson*
10.31	Form of Stock Option Agreement for options awarded in fiscal 2018*
21.1	Subsidiaries of TransDigm Group Incorporated
23.1	Consent of Independent Registered Public Accounting Firm
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 Consolidated Financial Statements formatted in XBRL.

* Indicates management contract or compensatory plan contract or arrangement.

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
AVIATION TECHNOLOGIES, INC.

Pursuant to Sections 242, 245 and 258 of the
General Corporation Law of the State of Delaware

Aviation Technologies, Inc., a corporation organized under the name of Wings Holdings, Inc. and existing under the laws of the State of Delaware (the "Corporation"), incorporated on March 7, 2003, hereby amends and restates its Certificate of Incorporation as follows:

FIRST: The name of the corporation is Aviation Technologies, Inc. (the "*Corporation*").

SECOND: The registered office of the Corporation is to be located at Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801, New Castle County. The name of its registered agent at that address is The Corporation 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 the State of Delaware (the "*GCL*").

FOURTH: The total number of shares of stock that the Corporation shall have authority to issue is Three Thousand (3,000) shares, all of which shall be Common Stock, \$.001 par value.

FIFTH: The Board of Directors is authorized to make, alter or repeal the By-laws of the Corporation.

SIXTH: Any one or more directors may be removed, with or without cause, by the vote or written consent of the holders of a majority of the issued and outstanding shares of stock of the Corporation entitled to be voted at an election of directors.

SEVENTH: Meetings of stockholders shall be held at such place, within or without the State of Delaware, as may be designated by or in the manner provided in the By-laws of the Corporation, or, if not so designated, at the registered office of the Corporation in the State of Delaware. Elections of directors need not be by written ballot unless and to the extent that the By-laws so provide.

EIGHTH: The Corporation reserves the right to amend, alter or repeal any provision contained in this Certificate of Incorporation in the manner now or hereafter prescribed by statute, and all rights of stockholders herein are subject to this reservation.


NINTH: A director of this Corporation shall not be personally liable to this Corporation or its shareholders for monetary damages for a breach of the director's fiduciary duty, except in the event of any of the following:

State of Delaware
Secretary of State
Division of Corporations
Delivered 10:15 AM 02/07/2007
FILED 10:15 AM 02/07/2007
SRV 070134381 - 3633813 FILE

- (a) A breach of the director's duty of loyalty to the Corporation or its shareholders;
- (b) Acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- (c) A violation of Section 174 of the General Corporation Law of the State of Delaware; and
- (d) A transaction from which the director derived an improper personal benefit.

TENTH: Each person who is or was or had agreed to become a director or officer of the Corporation, or each such person who is or was serving or who had agreed to serve at the request of the Board of Directors or an officer of the Corporation as an employee or agent of the Corporation or as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise (including the heirs, executors, administrators or estate of such person), shall be indemnified by the Corporation to the full extent permitted by the General Corporation Law of the State of Delaware or any other applicable laws as presently or hereafter in effect. Without limiting the generality or the effect of the foregoing, the Corporation may enter into one or more agreements with any person which provide for indemnification greater or different than that provided in this Article Eleventh. Any repeal or modification of this Article Eleventh shall not adversely affect any right or protection existing hereunder immediately prior to such repeal or modification.

IN WITNESS WHEREOF, said Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by an authorized officer this 2nd day of February, 2007.

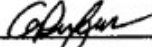


Name: ROY ROBINSON
Title: CEO

**STATE OF DELAWARE
CERTIFICATE OF CONVERSION
FROM A CORPORATION TO A LIMITED LIABILITY COMPANY
PURSUANT TO SECTION 18-214 OF THE LIMITED LIABILITY ACT**

1. The jurisdiction where the Corporation first formed is Delaware.
2. The jurisdiction immediately prior to filing this Certificate of Conversion is Delaware.
3. The date the Corporation first formed is October 10, 1986.
4. The name of the Corporation immediately prior to filing this Certificate of Conversion is Avionic Instruments Inc.
5. The name of the Limited Liability Company as set forth in the Certificate of Formation is Avionic Instruments LLC.
6. This Certificate of Conversion shall become effective upon filing.

IN WITNESS WHEREOF, the undersigned has executed this Certificate on the 25th day of June, 2007.

By: 
Print Name: Gregory Rufus

CERTIFICATE OF FORMATION
OF
AVIONICS INSTRUMENTS LLC

This Certificate of Formation of Avionics Instruments LLC, dated as of June 25, 2007, is being duly executed and filed by Jennifer Hardy, as an authorized person, to form a limited liability company under the Delaware Limited Liability Company Act (6 Del.C. §18-101, et seq.).


FIRST: The name of the limited liability company formed hereby is Avionics Instruments LLC (the "LLC").

SECOND: The name of the registered agent for service of process on the LLC in the State of Delaware is The Corporation Trust Company.

THIRD: The address of the registered office of the LLC in the State of Delaware is c/o Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19808, New Castle County.

FOURTH: This Certificate of Formation is to become effective upon filing.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Formation as of the date first written above.



Jennifer Hardy, Authorized Person

State of Delaware
Certificate of Merger of Foreign Corporation
into Domestic Limited Liability Company

Pursuant to Title 6, Section 18-209 of the Delaware Limited Liability Company Act.

First: The name of the surviving Limited Liability Company is Avionics Instruments LLC, a Delaware Limited Liability Company.

Second: The name of the foreign corporation being merged into this surviving Limited Liability Company is DAC Realty Corp.
The jurisdiction in which the foreign corporation was formed is New Jersey.

Third: The Agreement of Merger has been approved and executed by each of the constituent entities.

Fourth: The name of the surviving Limited Liability Company is: Avionics Instruments LLC

Fifth: The merger is to become effective on June 30, 2007.

Sixth: The Agreement of Merger is on file at The Tower at Erieview, Suite 3710, 1301 East 9th Street, Cleveland, Ohio 44114
a place of business of the surviving Limited Liability Company.

Seventh: A copy of the Agreement of Merger will be furnished by the surviving Limited Liability Company, on request without cost, to any member or stockholder of the constituent entities.

IN WITNESS WHEREOF, said Limited Liability Company has caused this certificate to be signed by an authorized person, this 29th day of June, A.D. 2007.

By: 
Authorized Person

Name: Gregory Rufus
Print or Type

**State of Delaware
Certificate of Correction
of a Limited Liability Company
to be filed pursuant to Section 18-211(a)**

1. The name of the Limited Liability Company is: _____
Avionic Instruments LLC

2. That a Certificate of Conversion was filed by the Secretary of State of Delaware on June 28, 2007, and that said Certificate requires correction as permitted by Section 18-211 of the Limited Liability Company Act.

3. The inaccuracy or defect of said Certificate is: (must give specific reason)

The name of the limited liability company was stated as "Avionics Instruments LLC".

4. The Certificate is hereby corrected to read as follows:

The name of the limited liability company as set forth in the Certificate of Formation is Avionic Instruments LLC.

IN WITNESS WHEREOF, the undersigned have executed this Certificate on
the 12 day of July, A.D. 2007

By: _____
Authorized Person

Name: Gregory Rufus
Print or Type

ARTICLES OF INCORPORATION

OF

AVIONICS SPECIALTIES, INC.

The undersigned, being an individual, does hereby act as incorporator in adopting the following Articles of Incorporation for the purpose of organizing a corporation authorized by law to issue shares, pursuant to the provisions of the Virginia Stock Corporation Act, Chapter 9 of Title 13.1 of the Code of Virginia.

FIRST: The corporate name for the corporation (hereinafter called the "corporation") is Avionics Specialties, Inc.

SECOND: The number of shares which the corporation is authorized to issue is 5,000, all of which are of a par value of 1.00 dollar each and are of the same class and are to be Common shares.

THIRD: The post office address with street number, if any, of the initial registered office of the corporation in the Commonwealth of Virginia is 200 West Grace Street, Richmond, Virginia 23220. The county or city in the Commonwealth of Virginia in which the said registered office of the corporation is located is the City of Richmond.

The name of the initial registered agent of the corporation at the said registered office is Calvin F. Major. The said initial registered agent meets the requirements of Section 13.1-634 of the Virginia Stock Corporation Act, inasmuch as he is a resident of the Commonwealth of Virginia and a member of the Virginia State Bar. The business office of the said registered agent of the corporation is identical with the said registered office of the corporation.

FOURTH: No holder of any of the shares of any class of the corporation shall be entitled as of right to subscribe for, purchase, or otherwise acquire any shares of any class of the corporation which the corporation proposes to issue or any rights or options which the corporation proposes to grant for the purchase of shares of any class of the corporation or for the purchase of any shares, bonds, securities, or obligations of the corporation which are convertible into or exchangeable for, or which carry any rights, to subscribe for, purchase, or otherwise acquire shares of any class of the corporation; and any and all of such shares, bonds, securities, or obligations of the corporation, whether now or hereafter authorized or created, may

be issued, or may be reissued if the same have been reacquired and if their reissue is not prohibited, and any and all of such rights and options may be granted by the Board of Directors to such individuals and entities, and for such lawful consideration, and on such terms, as the Board of Directors in its discretion may determine, without first offering the same, or any thereof, to any said holder.

FIFTH: The purposes for which the corporation is organized, which shall include the transaction of any or all lawful business for which corporations may be incorporated under the provisions of the Virginia Stock Corporation Act, other than the special kinds of business enumerated in Section 13.1-620 of the Virginia Stock Corporation Act, are for the researching, designing, manufacturing and servicing of instrumentation and engine monitoring systems for aircraft and helicopters and to have all of the general powers granted to corporations organized under the Virginia Stock Corporation Act whether granted by specific statutory authority or by construction of law.

SIXTH: Regarding the management of the business and the regulation of the affairs of the corporation, and for defining, limiting, and regulating the powers of the corporation, its directors, and shareholders, it is further provided:

1. Whenever any provision of the Virginia Stock Corporation Act shall otherwise require for the approval of any specified corporate action the authorization of more than two-thirds of the votes entitled to be cast by any voting group, any such corporate action shall be approved by the authorization of at least a majority of the votes entitled to be cast by said voting group. The term "voting group" as used herein shall have the meaning ascribed to it by Section 13.1-603 of the Virginia Stock Corporation Act.
2. The corporation shall, to the fullest extent permitted by the provisions of the Virginia Stock Corporation Act, as the same may be amended and supplemented, indemnify any and all persons whom it shall have power to indemnify under said provisions from and against any and all of the expenses, liabilities, or other matters referred to in or covered by said provisions, and the indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any Bylaw, vote of shareholders or disinterested directors, or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee, or agent and shall inure to the benefit of the heirs, executors, and administrators of such a person.

SEVENTH: The duration of the corporation shall be perpetual.

Signed on December 22, 1992.

Thomas F. Cooney

, Incorporator

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

December 29, 1992

The State Corporation Commission has found the accompanying articles submitted on behalf of

AVIONICS SPECIALTIES, INC.

to comply with the requirements of law, and confirms payment of all related fees.

Therefore, it is ORDERED that this

CERTIFICATE OF INCORPORATION

be issued and admitted to record with the articles of incorporation in the Office of the Clerk of the Commission, effective December 29, 1992.

The corporation is granted the authority conferred on it by law in accordance with the articles, subject to the conditions and restrictions imposed by law.

STATE CORPORATION COMMISSION

By



Commissioner

CORPACPT
CIS20423
92-12-28-0275

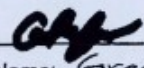
FILED
07 JUN 29 PM 2:32
SECRETARY OF STATE
TALLAHASSEE, FLORIDA

CERTIFICATE OF CONVERSION
OTHER BUSINESS ENTITY
INTO
FLORIDA LIMITED LIABILITY COMPANY

This Certificate of Conversion and attached Articles of Organization are submitted to convert the following "Other Business Entity" into a Florida Limited Liability Company in accordance with s.608.439, Florida Statutes.

1. The name of the "Other Business Entity" immediately prior to the filing of this Certificate of Conversion is CDA InterCorp. 354357
2. The "Other Business Entity" is a corporation first incorporated under the laws of Florida on February 9, 1970.
3. The name of the Florida Limited Liability Company as set forth in the attached Articles of Organization is CDA InterCorp LLC.
4. The effective date of this Certificate of Conversion shall be June 30, 2007.

Dated: June 25th, 2007


Print Name: Gregory Rufus
Title: Authorized Person

ARTICLES OF ORGANIZATION FOR FLORIDA LIMITED LIABILITY COMPANY

FILED
01 JAN 29 PM 2:32
SECRETARY OF STATE
TALLAHASSEE, FLORIDA

ARTICLE I - Name:

The name of the Limited Liability Company is:

CDA InterCorp LLC

(Must end with the words "Limited Liability Company," "Limited Company" or their abbreviation "LLC," or "L.C.,")

ARTICLE II - Address:

The mailing address and street address of the principal office of the Limited Liability Company is:

Principal Office Address:

450 Goolsby Blvd.
Deerfield Beach, Florida 33442-3019

Mailing Address:

450 Goolsby Blvd.
Deerfield Beach, Florida 33442-3019

ARTICLE III - Registered Agent, Registered Office, & Registered Agent's Signature:

(The Limited Liability Company cannot serve as its own Registered Agent. You must designate an individual or another business entity with an active Florida registration.)

The name and the Florida street address of the registered agent are:

C T Corporation System
Name
1200 South Pine Island Road
Florida street address (P.O. Box **NOT** acceptable)
Plantation, Florida 33324
City, State, and Zip

Having been named as registered agent and to accept service of process for the above stated limited liability company at the place designated in this certificate, I hereby accept the appointment as registered agent and agree to act in this capacity. I further agree to comply with the provisions of all statutes relating to the proper and complete performance of my duties, and I am familiar with and accept the obligations of my position as registered agent as provided for in Chapter 608, F.S.

C T Corporation System

Connie B...
Registered Agent's Signature (REQUIRED)

(CONTINUED)
Page 1 of 2

ARTICLE IV- Manager(s) or Managing Member(s):

The name and address of each Manager or Managing Member is as follows:

Title:

"MGR" = Manager

"MGRM" = Managing Member

Name and Address:

MGRM

TransDigm Inc.

1301 East 9th Street, Suite 3710

Cleveland, Ohio 44114

(Use attachment if necessary)

ARTICLE V: Effective date, if other than the date of filing: _____ (OPTIONAL)

(If an effective date is listed, the date must be specific and cannot be more than five business days prior to or 90 days after the date of filing.)

REQUIRED SIGNATURE:



Signature of a member or an authorized representative of a member.

(In accordance with section 608.408(3), Florida Statutes, the execution of this document constitutes an affirmation under the penalties of perjury that the facts stated herein are true.)

Gregory Rufus

Typed or printed name of signee

Filing Fees:

\$125.00 Filing Fee for Articles of Organization and Designation of Registered Agent

\$ 30.00 Certified Copy (Optional)

\$ 5.00 Certificate of Status (Optional)

FOURTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT
OF
ELECTROMECH TECHNOLOGIES LLC

The undersigned, being the sole member of Electromech Technologies LLC, a Delaware limited liability company (the "Company"), does hereby execute this Fourth Amended and Restated Limited Liability Company Agreement of the Company effective the 30th day of September, 2017. The Company was formed as a Delaware limited liability company on the 25th day of February, 1987, upon the filing of its Certificate of Formation with the Secretary of State of the State of Delaware.

ARTICLE I

MEMBER

McKechnie Aerospace US LLC shall be, and is, hereby admitted to the Company as the sole member of the Company (the "Member"). All actions taken and all things done and all expenditures made by any authorized representative of the Company, including, without limitation, the Member, in connection with its organization and qualification are hereby ratified, approved and confirmed in all respects.

ARTICLE II

OFFICE

The principal office of the Company shall be located at 2600 S. Custer Avenue, Wichita, Kansas 67217 (the "Principal Office"). The Company may have such other offices as the Member may designate or as the business of the Company may require. The name and address of the statutory agent of the Company is as set forth in the Company's Certificate of Formation, and such agent and address of agent may be changed from time to time by the Member.

ARTICLE III

PURPOSE

The purpose for which the Company is organized is to conduct any lawful business purposes as defined in Section 18-106 of the Delaware Limited Liability Company Act (the "Act"). The Company shall have all of the powers granted to a limited liability company under the laws of the State of Delaware.

ARTICLE IV

DURATION OF THE COMPANY

The Company shall continue in perpetuity unless terminated sooner by operation of law or by decision of the Member.

ARTICLE V

CAPITAL CONTRIBUTIONS

The Member has contributed all of the capital of the Company and may in the future contribute any additional capital deemed necessary by the Member for the operation of the Company.

ARTICLE VI

OWNERSHIP OF MEMBERSHIP INTERESTS

The Member shall own all of the membership interests in the Company and the Member shall have a 100% distributive share of the Company's profits, losses and cash flow.

ARTICLE VII

MANAGEMENT

The Member will manage the affairs of the Company, but shall be entitled to appoint or authorize representatives to act on behalf of the Company and to delegate the authority otherwise reserved to the Member to such representatives. The signature of the Member of the Company shall be sufficient to bind the Company with respect to any matter on which the Member shall be required or entitled to act. The Member has the power, on behalf of the Company, to do all things necessary or convenient to carry out the business and affairs of the Company. A copy of this Fourth Amended and Restated Limited Liability Company Agreement may be shown to third parties (and all third parties may rely hereupon) in order to confirm the identity and authorization of the Member.

ARTICLE VIII

BOOKS AND RECORDS

The Company books shall be maintained at the Principal Office. The books shall be kept on a calendar year basis, and shall be closed and balanced at the end of each such year. The Member shall cause all known business transactions pertaining to the purpose of the Company to be entered properly and completely into said book. The Member will prepare and file on behalf of the Company all tax returns in a timely manner.

ARTICLE IX

AMENDMENTS

This Fourth Amended and Restated Limited Liability Company Agreement may be amended by a written instrument adopted by the Member and executed by the Member at any time, for any purpose, at the sole discretion of the Member.

ARTICLE X

INDEMNIFICATION

Section 1. Indemnification in Non-Derivative Actions. The Company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Company) by reason of the fact that he is or was a member, manager or officer of the Company, or is or was serving at the request of the Company as a member, manager, director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.

Section 2. Indemnification in Derivative Actions. The Company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Company to procure a judgment in its favor by reason of the fact that he is or was a member, manager or officer of the Company, or is or was serving at the request of the Company as a member, manager, director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Company unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 3. Indemnification as a Matter of Right. To the extent that a director, officer, employee or agent of the Company has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article X, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

Section 4. Determination of Conduct. Any indemnification under Sections 1 and 2 of this Article X (unless ordered by a court) shall be made by the Company only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in Sections 1 and 2 of this Article X. Such determination shall be made (1) by the board of directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable a quorum of

disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders.

Section 5. Advance Payment of Expenses. Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the Company in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Company as authorized in this section.

Section 6. Nonexclusivity. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article X shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.

Section 7. Liability Insurance. The Company shall have the power to purchase and maintain insurance on behalf of any person who is or was a member, manager, director, officer, employee or agent of the Company, or is or was serving at the request of the Company as a member, manager, director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Company would have the power to indemnify him against such liability under the provisions of this section.

Section 8. Company. For purposes of this Article X, references to "the Company" shall include, in addition to the resulting entity, any constituent entity (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its members, managers, directors, officers, and employees or agents, so that any person who is or was a member, manager, director, officer, employee or agent of such constituent entity, or is or was serving at the request of such constituent entity as a director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article X with respect to the resulting or surviving entity as he would have with respect to such constituent entity if its separate existence had continued.

Section 9. Employee Benefit Plans. For purposes of this Article X, references to any "other enterprise" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a member, manager, officer, employee or agent of the Company which imposes duties on, or involves services by, such member, manager, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Article X.

Section 10. Continuation. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article X shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a member, manager, director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

ARTICLE XI

APPLICABILITY OF UCC ARTICLE 8

The Company hereby irrevocably elects that all membership interests in the Company shall be securities governed by Article 8 of the Uniform Commercial Code. Each certificate evidencing membership interests in the Company shall bear the following legend:

"This certificate evidences an interest in Electromech Technologies LLC and shall be a security for purposes of Article 8 of the Uniform Commercial Code."

No change to this provision shall be effective until all outstanding certificates have been surrendered for cancellation and any new certificates thereafter issued shall not bear the foregoing legend.

ARTICLE XII

MISCELLANEOUS

This Fourth Amended and Restated Limited Liability Company Agreement is made by the Member for the exclusive benefit of the Company, its Member, and his successors and assignees. This Fourth Amended and Restated Limited Liability Company Agreement is expressly not intended for the benefit of any creditor of the Company or any other person or entity. Except and only to the extent provided by applicable statute or otherwise in this Fourth Amended and Restated Limited Liability Company Agreement, no such creditor or third party shall have any rights under this Fourth Amended and Restated Limited Liability Company Agreement or any agreement between the Company and the Member with respect to any capital contribution or otherwise.

IN WITNESS WHEREOF, the Member has hereunto set his hand effective the day and year first above written.

McKechnie Aerospace US LLC, sole member

By: /s/ Halle F. Terrion

Its: Secretary

FILING #0005078388 PG 01 OF 03 VOL B-01923
FILED 03/31/2014 10:00 AM PAGE 00425
SECRETARY OF THE STATE
CONNECTICUT SECRETARY OF THE STATE

**State of Connecticut
Certificate of Conversion
From a Corporation to a
Limited Liability Company pursuant to
CT GEN STAT § 34-635 (2012)**

1. The jurisdiction where the Corporation first formed is Connecticut.
2. The jurisdiction immediately prior to filing this Certificate is Connecticut.
3. The date the Corporation first formed is September 23, 1954.
4. The name of the converting Corporation immediately prior to filing this Certificate is HARCO LABORATORIES, INCORPORATED.
5. The name of the converted Limited Liability Company as set forth in the Articles of Organization is HARCO LLC.
6. The plan of conversion was approved in accordance with Part IV of Chapter 616 of the Connecticut General Statutes.

IN WITNESS WHEREOF, the undersigned has executed this Certificate on the 31st Day of March, A.D. 2014.

HARCO LABORATORIES, INCORPORATED

By: 
Gregory Rufes, Authorized Person



SECRETARY OF THE STATE OF CONNECTICUT

MAILING ADDRESS: COMMERCIAL RECORDING DIVISION, CONNECTICUT SECRETARY OF THE STATE, P.O. BOX 150470, HARTFORD, CT 06115-0470
 DELIVERY ADDRESS: COMMERCIAL RECORDING DIVISION, CONNECTICUT SECRETARY OF THE STATE, 30 TRINITY STREET, HARTFORD, CT 06106
 PHONE: 880-509-6003 WEBSITE: WWW.CORRCDL-2013.CT.GOV

**ARTICLES OF ORGANIZATION
 LIMITED LIABILITY COMPANY - DOMESTIC**

C.O.S. §§34-120; 34-121

USE INK. COMPLETE ALL SECTIONS. PRINT OR TYPE. ATTACH 8 1/2 X 11 SHEETS IF NECESSARY.

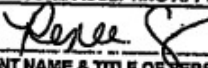
FILING PARTY (CONFIRMATION WILL BE SENT TO THIS ADDRESS): NAME: ADDRESS: CITY: STATE:		FILING FEE: \$120 MAKE CHECKS PAYABLE TO "SECRETARY OF THE STATE"
ZIP: 186 Cedar Street		
1. NAME OF LIMITED LIABILITY COMPANY - REQUIRED: (MUST INCLUDE BUSINESS DESIGNATION I.E. LLC, L.L.C., ETC.) HARCO LLC		
2. DESCRIPTION OF BUSINESS TO BE TRANSACTED OR PURPOSE TO BE PROMOTED - REQUIRED: ATTACH 8 1/2 X 11 SHEETS IF NECESSARY. The purpose of the limited liability company is to engage in any lawful act or activity for which a limited liability company may be formed under the Connecticut Limited Liability Company Act.		
3. LLC'S PRINCIPAL OFFICE ADDRESS - REQUIRED: (NO P.O. BOX) PROVIDE FULL ADDRESS. "SAME AS ABOVE" NOT ACCEPTABLE. ADDRESS: 186 Cedar Street CITY: Branford STATE: CT ZIP: 06405		
4. MAILING ADDRESS, IF DIFFERENT THAN #3: PROVIDE FULL ADDRESS. "SAME AS ABOVE" NOT ACCEPTABLE. ADDRESS: 1301 E. 9th Street, Suite 3000 CITY: Cleveland STATE: OH ZIP: 44114		
5. APPOINTMENT OF STATUTORY AGENT FOR SERVICE OF PROCESS - REQUIRED: (COMPLETE A OR B NOT BOTH) <input type="checkbox"/> A. IF AGENT IS AN INDIVIDUAL. PRINT OR TYPE FULL LEGAL NAME:		
BUSINESS ADDRESS (P.O. BOX NOT ACCEPTABLE) IF NONE, MUST STATE "NONE"		CONNECTICUT RESIDENCE ADDRESS (P.O. BOX NOT ACCEPTABLE)
ADDRESS: CITY: STATE: ZIP:		ADDRESS: CITY: STATE: ZIP:
SIGNATURE ACCEPTING APPOINTMENT:		

B. IF AGENT IS A BUSINESS:
 PRINT OR TYPE NAME OF BUSINESS AS IT APPEARS ON OUR RECORDS:

CT Corporation System

CT BUSINESS ADDRESS (P.O. BOX UNACCEPTABLE)
 ADDRESS: One Corporate Center

CITY: Hartford
 STATE: Connecticut ZIP: 06103-3220

SIGNATURE ACCEPTING APPOINTMENT ON BEHALF OF AGENT:
 Renee Cruz, Asst. Secretary

PRINT NAME & TITLE OF PERSON SIGNING:

6. MANAGER OR MEMBER INFORMATION-REQUIRED: (MUST LIST AT LEAST ONE MANAGER OR MEMBER OF THE LLC.)
 ATTACH 8 1/2 X 11 SHEETS IF NECESSARY.

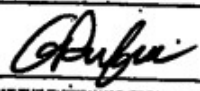
NAME	TITLE	BUSINESS ADDRESS (No. P.O. Box) IF NONE, MUST STATE "NONE"	RESIDENCE ADDRESS: (No. P.O. Box)
TransDigm Inc.	Sole Member	1301 E.9th St, Ste 3000 Cleveland, OH 44114	N/A

7. MANAGEMENT - PLACE A CHECK NEXT TO THE FOLLOWING STATEMENT ONLY IF IT APPLIES

MANAGEMENT OF THE LIMITED LIABILITY COMPANY SHALL BE VESTED IN A MANAGER OR MANAGERS

8. EXECUTION: (SUBJECT TO PENALTY OF FALSE STATEMENT)

DATED THIS 31st DAY OF March, 20 14

NAME OF ORGANIZER (PRINT OR TYPE)	SIGNATURE
Harco Laboratories, Incorporated converting entity Gregory Rufus, Authorized Person	

AN ANNUAL REPORT WILL BE DUE YEARLY IN THE ANNIVERSARY MONTH THAT THE ENTITY WAS FORMED/REGISTERED AND CAN BE EASILY FILED ONLINE @ www.consolidated.ct.gov
 CONTACT YOUR TAX ADVISOR OR THE TAXPAYER SERVICE CENTER AT THE DEPARTMENT OF REVENUE SERVICES AS TO ANY POTENTIAL TAX LIABILITY RELATING TO YOUR BUSINESS, INCLUDING QUESTIONS ABOUT THE BUSINESS ENTITY TAX.
 TAX PAYER SERVICE CENTER: (800) 382-6483 OR (860) 297-5982 OR GO TO www.ct.gov/drs



SECRETARY OF THE STATE OF CONNECTICUT

MAILING ADDRESS: COMMERCIAL RECORDING DIVISION, CONNECTICUT SECRETARY OF THE STATE, P.O. BOX 150470, HARTFORD, CT 06115-0470
DELIVERY ADDRESS: COMMERCIAL RECORDING DIVISION, CONNECTICUT SECRETARY OF THE STATE, 30 TRINITY STREET, HARTFORD, CT 06106
PHONE: 860-509-6003 WEBSITE: WWW.COMM-REGS.CT.GOV

CERTIFICATE OF AMENDMENT
Limited Liability Company-DOMESTIC

C.G.S. §§34-247a; 34-247b

USE INK. COMPLETE ALL SECTIONS. PRINT OR TYPE. ATTACH 8^{1/2} X FILING #0006257624 PG 01 OF 01 VOL B-02582
FILED 10/10/2018 04:00 PM PAGE 00290
SECRETARY OF THE STATE
CONNECTICUT SECRETARY OF THE STATE

FILING PARTY (CONFIRMATION WILL BE SENT TO THIS ADDRESS)		OF THE STATE*
NAME:		
MAILING ADDRESS:		
CITY:		
STATE:	ZIP:	

1. NAME OF LIMITED LIABILITY COMPANY - REQUIRED: (MUST MATCH OUR CURRENT RECORDS EXACTLY WITH DESIGNATION SUCH AS L.L.C., LLC, ETC.)

HARCO LLC

2. THE LIMITED LIABILITY COMPANY'S CERTIFICATE OF ORGANIZATION IS (CHECK A, B, C OR D) - REQUIRED:

A. AMENDED, NAME ONLY: HarcoSemco LLC
(SPECIFY NEW NAME. MUST INCLUDE BUSINESS DESIGNATION SUCH AS: L.L.C., LLC, ETC.)

B. AMENDED: ANY AMENDMENTS TO THE CERTIFICATE OF ORGANIZATION.

C. AMENDED AND RESTATED: PROVIDE THE TEXT OF EACH AMENDMENT AND ATTACH A COMPLETE RESTATEMENT OF THE LIMITED LIABILITY COMPANY'S CERTIFICATE OF ORGANIZATION.

D. RESTATED: INTEGRATION OF ALL PREVIOUS AMENDMENTS TO THE CERTIFICATE OF ORGANIZATION INTO ONE DOCUMENT. ATTACH A COMPLETE RESTATEMENT OF THE LLC'S CERTIFICATE OF ORGANIZATION.

3. FULL TEXT OF EACH AMENDMENT - REQUIRED IF 2B OR 2C IS CHECKED:
(NOTE: IF YOU ARE AMENDING THE BUSINESS NAME ONLY, COMPLETE SECTION 2A AND YOU MAY LEAVE THIS SECTION BLANK.)

4. EXECUTION - REQUIRED: (SUBJECT TO PENALTY OF FALSE STATEMENT)

DATE (MM/DD/YYYY) <u>09/25/2018</u>		
NAME OF SIGNATORY (print/type)	CAPACITY/TITLE OF SIGNATORY	SIGNATURE
Halle F. Terrior	Authorized Person	

**FIRST AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT**

OF

HARCOSEMCO LLC

The undersigned, being the sole member of HARCOSEMCO LLC, a Connecticut limited liability company (the "Company"), does hereby execute this First Amended and Restated Limited Liability Company Agreement of the Company effective October 10, 2018. The Company was formed as a Connecticut limited liability company on March 31, 2014, upon the filing of its Articles of Organization with the Secretary of State of the State of Connecticut.

**Article I
MEMBER**

TransDigm Inc. shall be, and is, hereby admitted to the Company as the sole member of the Company (the "Member"). All actions taken and all things done and all expenditures made by any authorized representative of the Company, including, without limitation, the Member, in connection with its organization and qualification are hereby ratified, approved and confirmed in all respects.

**ARTICLE II
OFFICE**

The principal office of the Company shall be located at 186 Cedar Street, Branford, Connecticut 06405-6011 (the "Principal Office"). The Company may have such other offices as the Member may designate or as the business of the Company may require. The name and address of the statutory agent of the Company is as set forth in the Company's Articles of Organization, and such agent and address of agent may be changed from time to time by the Member.

**ARTICLE III
PURPOSE**

The purpose for which the Company is organized is to conduct any lawful business purposes as defined in Section 34-119 of the Connecticut Limited Liability Company Act (the "Act"). The Company shall have all of the powers granted to a limited liability company under the laws of the State of Connecticut.

**ARTICLE IV
DURATION OF THE COMPANY**

The Company shall commence immediately, upon the effective date of this Limited Liability Company Agreement, and shall continue in perpetuity thereafter unless terminated sooner by operation of law or by decision of the Member.

**ARTICLE V
CAPITAL CONTRIBUTIONS**

The Member has contributed all of the capital of the Company and may in the future contribute any additional capital deemed necessary by the Member for the operation of the Company.

**ARTICLE VI
OWNERSHIP OF MEMBERSHIP INTERESTS**

The Member shall own all of the membership interests in the Company and the Member shall have a 100% distributive share of the Company's profits, losses and cash flow.

**ARTICLE VII
MANAGEMENT**

The Member will manage the affairs of the Company, but shall be entitled to appoint or authorize representatives to act on behalf of the Company and to delegate the authority otherwise reserved to the Member to such representatives. The signature of the Member of the Company shall be sufficient to bind the Company with respect to any matter on which the Member shall be required or entitled to act. The Member has the power, on behalf of the Company, to do all things necessary or convenient to carry out the business and affairs of the Company. A copy of this Limited Liability Company Agreement may be shown to third parties (and all third parties may rely hereupon) in order to confirm the identity and authorization of the Member.

**ARTICLE VIII
BOOKS AND RECORDS**

The Company books shall be maintained at the Principal Office. The books shall be kept on a calendar or fiscal year basis as determined by the Member, and shall be closed and balanced at the end of each such year. The Member shall cause all known business transactions pertaining to the purpose of the Company to be entered properly and completely into said book. The Member will prepare and file on behalf of the Company all tax returns in a timely manner.

**ARTICLE IX
AMENDMENTS**

This Limited Liability Company Agreement may be amended by a written instrument adopted by the Member and executed by the Member at any time, for any purpose, at the sole discretion of the Member.

**ARTICLE X
INDEMNIFICATION**

Section 1. Indemnification in Non-Derivative Actions. The Company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Company) by reason of the fact that he is or was a member, manager or officer of the Company, or is or was serving at the request of the Company as a member, manager, director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.

Section 2. Indemnification in Derivative Actions. The Company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Company to procure a judgment in its favor by reason of the fact that he is or was a member, manager or officer of the Company, or is or was serving at the request of the Company as a member, manager, director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Company unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 3. Indemnification as a Matter of Right. To the extent that a director, officer, employee or agent of the Company has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article X, or in defense

of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

Section 4. Determination of Conduct. Any indemnification under Sections 1 and 2 of this Article X (unless ordered by a court) shall be made by the Company only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in Sections 1 and 2 of this Article X. Such determination shall be made (1) by the board of directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders.

Section 5. Advance Payment of Expenses. Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the Company in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Company as authorized in this section.

Section 6. Nonexclusivity. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article X shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.

Section 7. Liability Insurance. The Company shall have the power to purchase and maintain insurance on behalf of any person who is or was a member, manager, director, officer, employee or agent of the Company, or is or was serving at the request of the Company as a member, manager, director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Company would have the power to indemnify him against such liability under the provisions of this section.

Section 8. Company. For purposes of this Article X, references to "the Company" shall include, in addition to the resulting entity, any constituent entity (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its members, managers, directors, officers, and employees or agents, so that any person who is or was a member, manager, director, officer, employee or agent of such constituent entity, or is or was serving at the request of such constituent entity as a director, officer, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article X with respect to the resulting or surviving entity as he would have with respect to such constituent entity if its separate existence had continued.

Section 9. Employee Benefit Plans. For purposes of this Article X, references to any “other enterprise” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the Company” shall include any service as a member, manager, officer, employee or agent of the Company which imposes duties on, or involves services by, such member, manager, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the Company” as referred to in this Article X.

Section 10. Continuation. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article X shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a member, manager, director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

ARTICLE XI APPLICABILITY OF UCC ARTICLE 8

The Company hereby irrevocably elects that all membership interests in the Company shall be securities governed by Article 8 of the Uniform Commercial Code. Each certificate evidencing membership interests in the Company shall bear the following legend:

“This certificate evidences an interest in HARCOSEMCO LLC and shall be a security for purposes of Article 8 of the Uniform Commercial Code.”

No change to this provision shall be effective until all outstanding certificates have been surrendered for cancellation and any new certificates thereafter issued shall not bear the foregoing legend.

ARTICLE XII MISCELLANEOUS

This Limited Liability Company Agreement is made by the Member for the exclusive benefit of the Company, its Member, and his successors and assignees. This Limited Liability Company Agreement is expressly not intended for the benefit of any creditor of the Company or any other person or entity. Except and only to the extent provided by applicable statute or otherwise in this Limited Liability Company Agreement, no such creditor or third party shall have any rights under this Limited Liability Company Agreement or any agreement between the Company and the Member with respect to any capital contribution or otherwise.

IN WITNESS WHEREOF, the Member has hereunto set his hand effective the day and year first above written.

TRANSDIGM INC., its sole member

By: Halle Terrion
Its: General Counsel, Chief Compliance Officer and Secretary

BY-LAWS
OF
ILC HOLDINGS, INC.
a Delaware corporation

ARTICLE I

Meetings of Stockholders

Section 1. Annual Meetings. The annual meeting of stockholders shall be held at such time and place and on such date in each year as may be fixed by the board of directors and stated in the notice of the meeting, for the election of directors, the consideration of reports to be laid before such meeting and the transaction of such other business as may properly come before the meeting.

Section 2. Special Meetings. Special meetings of the stockholders shall be called upon the written request of the chairman of the board of directors, the chief executive officer, the president, the directors by action at a meeting, a majority of the directors acting without a meeting, or of the holders of shares entitling them to exercise a majority of the voting power of the Corporation entitled to vote thereat. Calls for such meetings shall specify the purposes thereof. No business other than that specified in the call shall be considered at any special meeting.

Section 3. Notices of Meetings. Unless waived, and except as provided in Section 230 of the General Corporation Law of the State of Delaware (the “DGCL”), written notice of each annual or special meeting stating the date, time, place and purposes thereof shall be given by personal delivery or by mail to each stockholder of record entitled to vote at or entitled to notice of the meeting, not more than sixty days nor less than ten days before any such meeting. If mailed, such notice shall be directed to the stockholder at his address as the same appears upon the records of the Corporation. Any stockholder, either before or after any meeting, may waive any notice required to be given by law or under these By-laws.

Section 4. Place of Meetings. Meetings of stockholders shall be held at the principal office of the Corporation unless the board of directors determines that a meeting shall be held at some other place within or without the State of Delaware and causes the notice thereof to so state.

Section 5. Quorum. The holders of shares entitling them to exercise a majority of the voting power of the Corporation entitled to vote at any meeting, present in person or by proxy, shall constitute a quorum for the transaction of business to be considered at such meeting; provided, however, that no action required by law or by the Certificate of Incorporation or these By-laws to be authorized or taken by the holders of a designated proportion of the shares of any particular class or of each class may be authorized or taken by a lesser proportion; and provided, further, that if a separate class vote is required with respect to any matter, the holders of a majority of the outstanding shares of such class, present in person or by proxy, shall constitute a quorum of such class, and the affirmative vote of the majority of shares of such class so present shall be the act of such class. The holders of a majority of the voting shares represented at a

meeting, whether or not a quorum is present, may adjourn such meeting from time to time, until a quorum shall be present.

Section 6. Record Date. The board of directors may fix a record date for any lawful purpose, including, without limiting the generality of the foregoing, the determination of stockholders entitled to (i) receive 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, (ii) receive payment of any dividend or other distribution or allotment of any rights, or (iii) exercise any rights in respect of any change, conversion or exchange of stock. Such record date shall not precede the date on which the resolution fixing the record date is adopted by the board of directors. Such record date shall not be more than sixty days nor less than ten days before the date of such meeting, nor more than sixty days before the date fixed for the payment of any dividend or distribution or the date fixed for the receipt or the exercise of rights, nor more than ten days after the date on which the resolution fixing the record date for such written consent is adopted by the board of directors, as the case may be.

If a record date shall not be fixed in respect of any such matter, the record date shall be determined in accordance with the DGCL.

Section 7. Proxies. A person who is entitled to attend a stockholders' meeting, to vote thereat, or to execute consents, waivers or releases, may be represented at such meeting or vote thereat, and execute consents, waivers and releases, and exercise any of his other rights, by proxy or proxies appointed by a writing signed by such person.

ARTICLE II

Directors

Section 1. Number of Directors. Until changed in accordance with the provisions of this section, the number of directors of the Corporation, none of whom need be stockholders, shall be no fewer than two (2) and no more than three (3). The number of directors may be fixed or changed by amendment of these By-laws or by resolution of the board of directors.

Section 2. Election of Directors. Directors shall be elected at the annual meeting of stockholders, but when the annual meeting is not held or directors are not elected thereat, they may be elected at a special meeting called and held for that purpose. Such election shall be by ballot whenever requested by any stockholder entitled to vote at such election, but unless such request is made the election may be conducted in any manner approved at such meeting.

At each meeting of stockholders for the election of directors, the persons receiving the greatest number of votes shall be directors.

Section 3. Term of Office. Each director shall hold office until the annual meeting next succeeding his election and until his successor is elected and qualified, or until his earlier resignation, removal from office or death.

Section 4. Removal. All the directors, or all the directors of a particular class, or any individual director may be removed from office, without assigning any cause, by the vote of

holders of a majority of the voting power entitling them to elect directors in place of those to be removed.

Section 5. Vacancies. Vacancies in the board of directors may be filled by a majority vote of the remaining directors until an election to fill such vacancies is held. Stockholders entitled to elect directors shall have the right to fill any vacancy in the board (whether the same has been temporarily filled by the remaining directors or not) at any meeting of the stockholders called for that purpose, and any directors elected at any such meeting of stockholders shall serve until the next annual election of directors and until their successors are elected and qualified.

Section 6. Quorum and Transaction of Business. A majority of the whole authorized number of directors shall constitute a quorum for the transaction of business, except that a majority of the directors in office shall constitute a quorum for filling a vacancy on the board. Whenever less than a quorum is present at the time and place appointed for any meeting of the board, a majority of those present may adjourn the meeting from time to time, until a quorum shall be present. The act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the board.

Section 7. Annual Meeting. Annual meetings of the board of directors shall be held immediately following annual meetings of the stockholders, or as soon thereafter as is practicable. If no annual meeting of the stockholders is held, or if directors are not elected thereat, then the annual meeting of the board of directors shall be held immediately following any special meeting of the stockholders at which directors are elected, or as soon thereafter as is practicable. If such annual meeting of directors is held immediately following a meeting of the stockholders, it shall be held at the same place at which such stockholders' meeting was held.

Section 8. Regular Meetings. Regular meetings of the board of directors shall be held at such times and places, within or without the State of Delaware, as the board of directors may, by resolution, from time to time determine. The secretary shall give notice of each such resolution to any director who was not present at the time the same was adopted, but no further notice of such regular meeting need be given.

Section 9. Special Meetings. Special meetings of the board of directors may be called by the chairman of the board, the chief executive officer, the president, any vice president or any two members of the board of directors, and shall be held at such times and places, within or without the State of Delaware, as may be specified in such call.

Section 10. Notice of Annual or Special Meetings. Notice of the time and place of each annual or special meeting of the board of directors shall be given to each director by the secretary or by the person or persons calling such meeting. Such notice need not specify the purpose or purposes of the meeting and may be given in any manner or method and at such time so that the director receiving it may have reasonable opportunity to attend the meeting. Such notice shall, in all events, be deemed to have been properly and duly given if mailed at least forty-eight hours prior to the meeting and directed to the residence of each director as shown upon the secretary's records. The giving of notice shall be deemed to have been waived by any

director who shall attend and participate in such meeting and may be waived, in writing, by any director either before or after such meeting.

Section 11. Compensation. The directors, as such, shall be entitled to receive such reasonable compensation, if any, for their services as may be fixed from time to time by resolution of the board, and expenses of attendance, if any, may be allowed for attendance at each annual, regular or special meeting of the board. Nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of the executive committee or of any standing or special committee may, by resolution of the board, be allowed such compensation for their services as the board may deem reasonable, and additional compensation may be allowed to directors for special services rendered.

ARTICLE III

Committees

Section 1. Executive Committee. The board of directors may from time to time, by resolution passed by a majority of the whole board, create an executive committee of three or more directors, the members of which shall be elected by the board of directors to serve during the pleasure of the board. If the board of directors does not designate a chairman of the executive committee, the executive committee shall elect a chairman from its own number. Except as otherwise provided herein and in the resolution creating an executive committee, such committee shall, during the intervals between the meetings of the board of directors, possess and may exercise all of the powers of the board of directors in the management of the business and affairs of the Corporation, other than that of filling vacancies among the directors or in any committee of the directors or except as provided by law. The executive committee shall keep full records and accounts of its proceedings and transactions. All action by the executive committee shall be reported to the board of directors at its meeting next succeeding such action and shall be subject to control, revision and alteration by the board of directors, provided that no rights of third persons shall be prejudicially affected thereby. Vacancies in the executive committee shall be filled by the directors, and the directors may appoint one or more directors as alternate members of the committee who may take the place of any absent member or members at any meeting.

Section 2. Meetings of Executive Committee. Subject to the provisions of these By-laws, the executive committee shall fix its own rules of procedure and shall meet as provided by such rules or by resolutions of the board of directors, and it shall also meet at the call of the chairman of the board, the chief executive officer, the president, the chairman of the executive committee or any two members of the committee. Unless otherwise provided by such rules or by such resolutions, the provisions of Section 10 of Article II relating to the notice required to be given of meetings of the board of directors shall also apply to meetings of the members of the executive committee. A majority of the executive committee shall be necessary to constitute a quorum. The executive committee may act in writing without a meeting, but no such action of the executive committee shall be effective unless concurred in by all members of the committee.

Section 3. Other Committees. The board of directors may by resolution provide for such other standing or special committees as it deems desirable, and discontinue the same at its pleasure. Each such committee shall have such powers and perform such duties, not inconsistent with law, as may be delegated to it by the board of directors. The provisions of Section 1 and Section 2 of this Article shall govern the appointment and action of such committees so far as consistent, unless otherwise provided by the board of directors. Vacancies in such committees shall be filled by the board of directors or as the board of directors may provide.

ARTICLE IV

Officers

Section 1. General Provisions. The board of directors shall elect a president, such number of vice presidents, if any, as the board may from time to time determine, a secretary and a treasurer. The board of directors may also elect a chairman of the board of directors and may from time to time create such offices and appoint such other officers, subordinate officers and assistant officers as it may determine. The chairman of the board, if one be elected, shall be, but the other officers need not be, chosen from among the members of the board of directors. Any two or more of such offices, other than those of president and vice president, may be held by the same person.

Section 2. Term of Office. The officers of the Corporation shall hold office at the pleasure of the board of directors, and, unless sooner removed by the board of directors, until the annual meeting of the board of directors following the date of their election and until their successors are chosen and qualified. The board of directors may remove any officer at any time, with or without cause. Subject to the provisions of Section 8 of Article V of these By-laws, a vacancy in any office, however created, shall be filled by the board of directors.

ARTICLE V

Duties of Officers

Section 1. Chairman of the Board. The chairman of the board, if any, shall preside at all meetings of the board of directors and meetings of stockholders and shall have such other powers and duties as may be prescribed by the board of directors.

Section 2. Chief Executive Officer. The chief executive officer, if any, shall have, subject to the powers of the board of directors, charge of the overall general direction of the business and affairs of the Corporation, control of the general policies relating to all aspects of the Corporation's business operations, and the power to fix the compensation of officers and the power to remove officers. In the absence of the chairman of the board, or if none be elected, the chief executive officer shall preside at meetings of stockholders. The chief executive officer may appoint and discharge agents and employees and perform such other duties as are incident to such office. The chief executive officer shall have such other powers and perform such other duties as may be prescribed by the board of directors or as may be provided in these By-laws. In the absence or disability of the officer designated as chief executive officer, the president shall perform any and all duties of the chief executive officer.

Section 3. President. The president shall be the chief operating officer of the Corporation and shall have such other powers and duties as may be prescribed by the board of directors or the chief executive officer. The president shall have authority to sign all certificates for shares and all deeds, mortgages, bonds, agreements, notes, and other instruments requiring his signature; and shall have all the powers and duties prescribed by the DGCL and such others as the board of directors may from time to time assign to him.

Section 4. Vice Presidents. The vice presidents shall have such powers and duties as may from time to time be assigned to them by the board of directors, the chief executive officer or the president. At the request of the chief executive officer or the president, or in the case of his absence or disability, the vice president designated by the president (or in the absence of such designation, the vice president designated by the board) shall perform all the duties of the president and, when so acting, shall have all the powers of the president. The authority of vice presidents to sign in the name of the Corporation certificates for shares and deeds, mortgages, bonds, agreements, notes and other instruments shall be coordinate with like authority of the president.

Section 5. Secretary. The secretary shall keep minutes of all the proceedings of the stockholders and the board of directors and shall make proper record of the same, which shall be attested by him; shall have authority to execute and deliver certificates as to any of such proceedings and any other records of the Corporation; shall have authority to sign all certificates for shares and all deeds, mortgages, bonds, agreements, notes and other instruments to be executed by the Corporation which require his signature; shall give notice of meetings of stockholders and directors; shall produce on request at each meeting of stockholders a certified list of stockholders arranged in alphabetical order; shall keep such books and records as may be required by law or by the board of directors; and, in general, shall perform all duties incident to the office of secretary and such other duties as may from time to time be assigned to him by the board of directors, the chief executive officer or the president.

Section 6. Treasurer. The treasurer shall have general supervision of all finances; he shall have in charge all money, bills, notes, deeds, leases, mortgages and similar property belonging to the Corporation, and shall do with the same as may from time to time be required by the board of directors. He shall cause to be kept adequate and correct accounts of the business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, stated capital and shares, together with such other accounts as may be required; and he shall have such other powers and duties as may from time to time be assigned to him by the board of directors, the chief executive officer or the president.

Section 7. Assistant and Subordinate Officers. Each other officer shall perform such duties as the board of directors, the chief executive officer or the president may prescribe. The board of directors may, from time to time, authorize any officer to appoint and remove subordinate officers, to prescribe their authority and duties, and to fix their compensation.

Section 8. Duties of Officers May Be Delegated. In the absence of any officer of the Corporation, or for any other reason the board of directors may deem sufficient, the board of directors may delegate, for the time being, the powers or duties, or any of them, of such officers to any other officer or to any director.

ARTICLE VI

Indemnification and Insurance

Section 1. Indemnification in Non-Derivative Actions. The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director, officer, member, manager, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.

Section 2. Indemnification in Derivative Actions. The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director, officer, member, manager, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 3. Indemnification as a Matter of Right. To the extent that a director, officer, employee or agent of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article VI, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

Section 4. Determination of Conduct. Any indemnification under Sections 1 and 2 of this Article VI (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee

or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in Sections 1 and 2 of this Article VI. Such determination shall be made (1) by the board of directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders.

Section 5. Advance Payment of Expenses. Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Corporation as authorized in this section.

Section 6. Nonexclusivity. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.

Section 7. Liability Insurance. The Corporation shall have the power 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, officer, member, manager, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him against such liability under the provisions of this section.

Section 8. Corporation. For purposes of this Article VI, references to “the Corporation” shall include, in addition to the resulting entity, any constituent entity (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, members, managers and employees or agents, so that any person who is or was a director, officer, member, manager, employee or agent of such constituent entity, or is or was serving at the request of such constituent entity as a director, officer, member, manager, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article VI with respect to the resulting or surviving entity as he would have with respect to such constituent entity if its separate existence had continued.

Section 9. Employee Benefit Plans. For purposes of this Article VI, references to any “other enterprise” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the Corporation” shall include any service as a director, officer, employee or agent of the Corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed

to have acted in a manner “not opposed to the best interests of the Corporation” as referred to in this Article VI.

Section 10. Continuation. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VI shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

ARTICLE VII

Certificates for Shares

Section 1. Form and Execution. Certificates for shares, certifying the number of full-paid shares owned, shall be issued to each stockholder in such form as shall be approved by the board of directors. Such certificates shall be signed by the chairman or vice-chairman of the board of directors, the chief executive officer or the president or a vice president and by the secretary or an assistant secretary or the treasurer or an assistant treasurer; provided, however, that the signatures of any of such officers and the seal of the Corporation upon such certificates may be facsimiles, engraved, stamped or printed. If any officer or officers who shall have signed, or whose facsimile signature shall have been used, printed or stamped on any certificate or certificates for shares, shall cease to be such officer or officers, because of death, resignation or otherwise, before such certificate or certificates shall have been delivered by the Corporation, such certificate or certificates shall nevertheless be as effective in all respects as though signed by a duly elected, qualified and authorized officer or officers, and as though the person or persons who signed such certificate or certificates, or whose facsimile signature or signatures shall have been used thereon, had not ceased to be an officer or officers of the Corporation.

Section 2. Registration of Transfer. Any certificate for shares of the Corporation shall be transferable in person or by attorney upon the surrender thereof to the Corporation or any transfer agent therefor (for the class of shares represented by the certificate surrendered) properly endorsed for transfer and accompanied by such assurances as the Corporation or such transfer agent may require as to the genuineness and effectiveness of each necessary endorsement.

Section 3. Lost, Destroyed or Stolen Certificates. A new share certificate or certificates may be issued in place of any certificate theretofore issued by the Corporation which is alleged to have been lost, destroyed or wrongfully taken upon (i) the execution and delivery to the Corporation by the person claiming the certificate to have been lost, destroyed or wrongfully taken of an affidavit of that fact, specifying whether or not, at the time of such alleged loss, destruction or taking, the certificate was endorsed, and (ii) the furnishing to the Corporation of indemnity and other assurances, if any, satisfactory to the Corporation and to all transfer agents and registrars of the class of shares represented by the certificate against any and all losses, damages, costs, expenses or liabilities to which they or any of them may be subjected by reason of the issue and delivery of such new certificate or certificates or in respect of the original certificate.

Section 4. Registered Stockholders. A person in whose name shares are of record on the books of the Corporation shall conclusively be deemed the unqualified owner and holder thereof for all purposes and to have capacity to exercise all rights of ownership. Neither the Corporation nor any transfer agent of the Corporation shall be bound to recognize any equitable interest in or claim to such shares on the part of any other person, whether disclosed upon such certificate or otherwise, nor shall they be obliged to see to the execution of any trust or obligation.

ARTICLE VIII

Fiscal Year

The fiscal year of the Corporation shall end on such date in each year as shall be designated from time to time by the board of directors. In the absence of such designation, the fiscal year of the Corporation shall end on December 31 in each year.

ARTICLE IX

Seal

The board of directors may provide a suitable seal containing the name of the Corporation. If deemed advisable by the board of directors, duplicate seals may be provided and kept for the purposes of the Corporation.

ARTICLE X

Amendments

These By-laws shall be subject to alteration, amendment, repeal, or the adoption of new By-laws either by the affirmative vote or written consent of a majority of the whole board of directors, or by the affirmative vote or written consent of the holders of record of a majority of the outstanding stock of the Corporation, present in person or represented by proxy and entitled to vote in respect thereof, given at an annual meeting or at any special meeting at which a quorum shall be present.

ILC HOLDINGS, INC.

WRITTEN ACTION OF THE SOLE STOCKHOLDER WITHOUT A MEETING

The undersigned, being the holder of all of the issued and outstanding stock of ILC Holdings, Inc. (the "Company"), hereby approves and adopts the following resolution by this written consent, pursuant to Section 228 of the Delaware General Corporation Law:

RESOLVED, that the size of the Board of Directors be reduced in number to two (2); and

RESOLVED FURTHER, that the following persons are hereby chosen and elected as directors of the Company to serve until the next annual meeting and until their respective successors are duly elected and qualified:

Terrance M. Paradie
Halle F. Terrior

IN WITNESS WHEREOF, the undersigned has executed this instrument as of March 31, 2017.

TRANSDIGM INC.



Terrance M. Paradie, Executive Vice
President and Chief Financial Officer

BY-LAWS
OF
SKURKA AEROSPACE INC.

ARTICLE I

Meetings of Stockholders

Section 1. Annual Meetings. The annual meeting of stockholders shall be held at such time and place and on such date in each year as may be fixed by the board of directors and stated in the notice of the meeting, for the election of directors, the consideration of reports to be laid before such meeting and the transaction of such other business as may properly come before the meeting.

Section 2. Special Meetings. Special meetings of the stockholders shall be called upon the written request of the chief executive officer or the directors by action at a meeting, a majority of the directors acting without a meeting, or of the holders of shares entitling them to exercise a majority of the voting power of the Corporation entitled to vote thereat. Calls for such meetings shall specify the purposes thereof. No business other than that specified in the call shall be considered at any special meeting.

Section 3. Notices of Meetings. Unless waived, and except as provided in Section 230 of the General Corporation Law of the State of Delaware, written notice of each annual or special meeting stating the date, time, place and purposes thereof shall be given by personal delivery or by mail to each stockholder of record entitled to vote at or entitled to notice of the meeting, not more than sixty days nor less than ten days before any such meeting. If mailed, such notice shall be directed to the stockholder at his address as the same appears upon the records of the Corporation. Any stockholder, either before or after any meeting, may waive any notice required to be given by law or under these By-laws.

Section 4. Place of Meetings. Meetings of stockholders shall be held at the principal office of the Corporation unless the board of directors determines that a meeting shall be held at some other place within or without the State of Delaware and causes the notice thereof to so state.

Section 5. Quorum. The holders of shares entitling them to exercise a majority of the voting power of the Corporation entitled to vote at any meeting, present in person or by proxy, shall constitute a quorum for the transaction of business to be considered at such meeting; provided, however, that no action required by law or by the Certificate of Incorporation or these By-laws to be authorized or taken by the holders of a designated proportion of the shares of any particular class or of each class may be authorized or taken by a lesser proportion; and provided, further, that if a separate class vote is required with respect to any matter, the holders of a majority of the outstanding shares of such class, present in person or by proxy, shall constitute a quorum of such class, and the affirmative vote of the majority of shares of such class so present shall be the act of such class. The holders of a majority of the voting shares represented at a

meeting, whether or not a quorum is present, may adjourn such meeting from time to time, until a quorum shall be present.

Section 6. Record Date. The board of directors may fix a record date for any lawful purpose, including, without limiting the generality of the foregoing, the determination of stockholders entitled to (i) receive 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, (ii) receive payment of any dividend or other distribution or allotment of any rights, or (iii) exercise any rights in respect of any change, conversion or exchange of stock. Such record date shall not precede the date on which the resolution fixing the record date is adopted by the board of directors. Such record date shall not be more than sixty days nor less than ten days before the date of such meeting, nor more than sixty days before the date fixed for the payment of any dividend or distribution or the date fixed for the receipt or the exercise of rights, nor more than ten days after the date on which the resolution fixing the record date for such written consent is adopted by the board of directors, as the case may be.

If a record date shall not be fixed in respect of any such matter, the record date shall be determined in accordance with the General Corporation Law of the State of Delaware.

Section 7. Proxies. A person who is entitled to attend a stockholders' meeting, to vote thereat, or to execute consents, waivers or releases, may be represented at such meeting or vote thereat, and execute consents, waivers and releases, and exercise any of his other rights, by proxy or proxies appointed by a writing signed by such person.

Section 8. Action in Writing in Lieu of Meeting. Any action which may be authorized or be taken at a meeting of the shareholders, may be authorized or taken without a meeting with the affirmative vote or approval of, and in a writing or writings signed by, all the shareholders who would be entitled to notice of a meeting of the shareholders held for that purpose.

ARTICLE II

Directors

Section 1. Number of Directors. Until changed in accordance with the provisions of this section, the number of directors of the Corporation, none of whom need be stockholders, shall be two. The number of directors may be fixed or changed by amendment of these By-laws or by resolution of the board of directors.

Section 2. Election of Directors. Directors shall be elected at the annual meeting of stockholders, but when the annual meeting is not held or directors are not elected thereat, they may be elected at a special meeting called and held for that purpose. Such election shall be by ballot whenever requested by any stockholder entitled to vote at such election, but unless such request is made the election may be conducted in any manner approved at such meeting.

At each meeting of stockholders for the election of directors, the persons receiving the greatest number of votes shall be directors.

Section 3. Term of Office. Each director shall hold office until the annual meeting next succeeding his election and until his successor is elected and qualified, or until his earlier resignation, removal from office or death.

Section 4. Removal. All the directors, or all the directors of a particular class, or any individual director may be removed from office, without assigning any cause, by the vote of the holders of a majority of the voting power entitling them to elect directors in place of those to be removed.

Section 5. Vacancies. Vacancies in the board of directors may be filled by a majority vote of the remaining directors until an election to fill such vacancies is held. Stockholders entitled to elect directors shall have the right to fill any vacancy in the board (whether the same has been temporarily filled by the remaining directors or not) at any meeting of the stockholders called for that purpose, and any directors elected at any such meeting of stockholders shall serve until the next annual election of directors and until their successors are elected and qualified.

Section 6. Quorum and Transaction of Business. A majority of the whole authorized number of directors shall constitute a quorum for the transaction of business, except that a majority of the directors in office shall constitute a quorum for filling a vacancy on the board. Whenever less than a quorum is present at the time and place appointed for any meeting of the board, a majority of those present may adjourn the meeting from time to time, until a quorum shall be present. The act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the board.

Section 7. Annual Meeting. Annual meetings of the board of directors shall be held immediately following annual meetings of the stockholders, or as soon thereafter as is practicable. If no annual meeting of the stockholders is held, or if directors are not elected thereat, then the annual meeting of the board of directors shall be held immediately following any special meeting of the stockholders at which directors are elected, or as soon thereafter as is practicable. If such annual meeting of directors is held immediately following a meeting of the stockholders, it shall be held at the same place at which such stockholders' meeting was held.

Section 8. Regular Meetings. Regular meetings of the board of directors shall be held at such times and places, within or without the State of Delaware, as the board of directors may, by resolution, from time to time determine. The secretary shall give notice of each such resolution to any director who was not present at the time the same was adopted, but no further notice of such regular meeting need be given.

Section 9. Special Meetings. Special meetings of the board of directors may be called by the chief executive officer or any two members of the board of directors, and shall be held at such times and places, within or without the State of Delaware, as may be specified in such call.

Section 10. Notice of Annual or Special Meetings. Notice of the time and place of each annual or special meeting shall be given to each director by the secretary or by the person or persons calling such meeting. Such notice need not specify the purpose or purposes of the meeting and may be given in any manner or method and at such time so that the director receiving it may have reasonable opportunity to attend the meeting. Such notice shall, in all

events, be deemed to have been properly and duly given if mailed at least forty-eight hours prior to the meeting and directed to the residence of each director as shown upon the secretary's records. The giving of notice shall be deemed to have been waived by any director who shall attend and participate in such meeting and may be waived, in a writing, by any director either before or after such meeting.

Section 11. Compensation. The directors, as such, shall be entitled to receive such reasonable compensation, if any, for their services as may be fixed from time to time by resolution of the board, and expenses of attendance, if any, may be allowed for attendance at each annual, regular or special meeting of the board. Nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of the executive committee or of any standing or special committee may by resolution of the board be allowed such compensation for their services as the board may deem reasonable, and additional compensation may be allowed to directors for special services rendered.

Section 12. Action in Writing in Lieu of Meeting. Any action which may be authorized or taken at a meeting of the directors may be authorized or taken without a meeting with the affirmative vote or approval of, and in a writing or writings signed by, all the directors.

ARTICLE III

Committees

Section 1. Executive Committee. The board of directors may from time to time, by resolution passed by a majority of the whole board, create an executive committee of three or more directors, the members of which shall be elected by the board of directors to serve during the pleasure of the board. If the board of directors does not designate a chairman of the executive committee, the executive committee shall elect a chairman from its own number. Except as otherwise provided herein and in the resolution creating an executive committee, such committee shall, during the intervals between the meetings of the board of directors, possess and may exercise all of the powers of the board of directors in the management of the business and affairs of the Corporation, other than that of filling vacancies among the directors or in any committee of the directors or except as provided by law. The executive committee shall keep full records and accounts of its proceedings and transactions. All action by the executive committee shall be reported to the board of directors at its meeting next succeeding such action and shall be subject to control, revision and alteration by the board of directors, provided that no rights of third persons shall be prejudicially affected thereby. Vacancies in the executive committee shall be filled by the directors, and the directors may appoint one or more directors as alternate members of the committee who may take the place of any absent member or members at any meeting.

Section 2. Meetings of Executive Committee. Subject to the provisions of these By-laws, the executive committee shall fix its own rules of procedure and shall meet as provided by such rules or by resolutions of the board of directors, and it shall also meet at the call of the chief executive officer, the chairman of the executive committee or any two members of the committee. Unless otherwise provided by such rules or by such resolutions, the provisions of Section 10 of Article II relating to the notice required to be given of meetings of the board of

directors shall also apply to meetings of the members of the executive committee. A majority of the executive committee shall be necessary to constitute a quorum. The executive committee may act in a writing without a meeting, but no such action of the executive committee shall be effective unless concurred in by all members of the committee.

Section 3. Other Committees. The board of directors may by resolution provide for such other standing or special committees as it deems desirable, and discontinue the same at its pleasure. Each such committee shall have such powers and perform such duties, not inconsistent with law, as may be delegated to it by the board of directors. The provisions of Section 1 and Section 2 of this Article shall govern the appointment and action of such committees so far as consistent, unless otherwise provided by the board of directors. Vacancies in such committees shall be filled by the board of directors or as the board of directors may provide.

ARTICLE IV

Officers

Section 1. General Provisions. The board of directors shall elect a president, such number of vice presidents, if any, as the board may from time to time determine, a secretary and a treasurer. The board of directors may from time to time create such offices and appoint such other officers, subordinate officers and assistant officers as it may determine. Any two or more of such offices, other than those of president and vice president, may be held by the same person, but no officer shall execute, acknowledge or verify any instrument in more than one capacity.

Section 2. Term of Office. The officers of the Corporation shall hold office during the pleasure of the board of directors, and, unless sooner removed by the board of directors, until the annual meeting of the board of directors following the date of their election and until their successors are chosen and qualified. The board of directors may remove any officer at any time, with or without cause. Subject to the provisions of Section 6 of Article V of these By-laws, a vacancy in any office, however created, shall be filled by the board of directors.

ARTICLE V

Duties of Officers

Section 1. Chief Executive Officer. The Chief Executive Officer shall be the chief executive officer of the Corporation, shall preside at all meetings of the board of directors and meetings of stockholders and shall have such other powers and duties as may be prescribed by the board of directors.

Section 2. President. The president shall be the chief operating officer of the Corporation and shall exercise supervision over the business of the Corporation and over its several officers, subject, however, to the control of the board of directors. In the absence of the chief executive officer, the president shall preside at meetings of stockholders. The president

shall have authority to sign all certificates for shares and all deeds, mortgages, bonds, agreements, notes, and other instruments requiring his signature; and shall have all the powers and duties prescribed by the General Corporation Law of the State of Delaware and such others as the board of directors may from time to time assign to him.

Section 3. Vice Presidents. The vice presidents shall have such powers and duties as may from time to time be assigned to them by the board of directors, the chief executive officer or the president. At the request of the president, or in the case of his absence or disability, the vice president designated by the president (or in the absence of such designation, the vice president designated by the board) shall perform all the duties of the president and, when so acting, shall have all the powers of the president. The authority of vice presidents to sign in the name of the Corporation certificates for shares and deeds, mortgages, bonds, agreements, notes and other instruments shall be coordinate with like authority of the president.

Section 4. Secretary. The secretary shall keep minutes of all the proceedings of the stockholders and the board of directors and shall make proper record of the same, which shall be attested by him; shall have authority to execute and deliver certificates as to any of such proceedings and any other records of the Corporation; shall have authority to sign all certificates for shares and all deeds, mortgages, bonds, agreements, notes and other instruments to be executed by the Corporation which require his signature; shall give notice of meetings of stockholders and directors; shall produce on request at each meeting of stockholders a certified list of stockholders arranged in alphabetical order; shall keep such books and records as may be required by law or by the board of directors; and, in general, shall perform all duties incident to the office of secretary and such other duties as may from time to time be assigned to him by the board of directors, the chief executive officer or the president.

Section 5. Treasurer. The treasurer shall have general supervision of all finances; he shall have in charge all money, bills, notes, deeds, leases, mortgages and similar property belonging to the Corporation, and shall do with the same as may from time to time be required by the board of directors. He shall cause to be kept adequate and correct accounts of the business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, stated capital and shares, together with such other accounts as may be required; and he shall have such other powers and duties as may from time to time be assigned to him by the board of directors, the chief executive officer or the president.

Section 6. Assistant and Subordinate Officers. Each other officer shall perform such duties as the board of directors, the chief executive officer or the president may prescribe. The board of directors may, from time to time, authorize any officer to appoint and remove subordinate officers, to prescribe their authority and duties, and to fix their compensation.

Section 7. Duties of Officers May Be Delegated. In the absence of any officer of the Corporation, or for any other reason the board of directors may deem sufficient, the board of directors may delegate, for the time being, the powers or duties, or any of them, of such officers to any other officer or to any director.

ARTICLE VI

Indemnification and Insurance

Section 1 Indemnification in Non-Derivative Actions. The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.

Section 2. Indemnification in Derivative Actions. The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 3. Indemnification as a Matter of Right. To the extent that a director, officer, employee or agent of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article VI, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

Section 4. Determination of Conduct. Any indemnification under Sections 1 and 2 of this Article VI (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in Sections 1 and 2 of this Article VI. Such determination shall be made (1) by the board of directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders.

Section 5. Advance Payment of Expenses. Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Corporation as authorized in this section.

Section 6. Nonexclusivity. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.

Section 7. Liability Insurance. The Corporation shall have the power 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, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him against such liability under the provisions of this section.

Section 8. Corporation. For purposes of this Article VI, references to "the Corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article VI with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

Section 9. Employee Benefit Plans. For purposes of this Article VI, references to any "other enterprise" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the Corporation" shall include any service as a director, officer, employee or agent of the Corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the Corporation" as referred to in this Article VI.

Section 10. Continuation. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VI shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

ARTICLE VII

Certificates for Shares

Section 1. Form and Execution. Certificates for shares, certifying the number of full-paid shares owned, shall be issued to each stockholder in such form as shall be approved by the board of directors. Such certificates shall be signed by the chief executive officer or the president or a vice president and by the secretary or an assistant secretary or the treasurer or an assistant treasurer; provided, however, that the signatures of any of such officers and the seal of the Corporation upon such certificates may be facsimiles, engraved, stamped or printed. If any officer or officers who shall have signed, or whose facsimile signature shall have been used, printed or stamped on any certificate or certificates for shares, shall cease to be such officer or officers, because of death, resignation or otherwise, before such certificate or certificates shall have been delivered by the Corporation, such certificate or certificates shall nevertheless be as effective in all respects as though signed by a duly elected, qualified and authorized officer or officers, and as though the person or persons who signed such certificate or certificates, or whose facsimile signature or signatures shall have been used thereon, had not ceased to be an officer or officers of the Corporation.

Section 2. Transfers. Subject to restrictions on the transfer of stock, upon surrender to the Corporation or the duly appointed transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books. No transfer shall be made which would be inconsistent with the provisions of Article 8, Title 6 of the Delaware Uniform Commercial Code--Investment Securities.

Section 3. Lost, Destroyed or Stolen Certificates. A new share certificate or certificates may be issued in place of any certificate theretofore issued by the Corporation which is alleged to have been lost, destroyed or wrongfully taken upon (i) the execution and delivery to the Corporation by the person claiming the certificate to have been lost, destroyed or wrongfully taken of an affidavit of that fact, specifying whether or not, at the time of such alleged loss, destruction or taking, the certificate was endorsed, and (ii) the furnishing to the Corporation of indemnity and other assurances, if any, satisfactory to the Corporation and to all transfer agents and registrars of the class of shares represented by the certificate against any and all losses, damages, costs, expenses or liabilities to which they or any of them may be subjected by reason of the issue and delivery of such new certificate or certificates or in respect of the original certificate.

Section 4. Registered Stockholders. A person in whose name shares are of record on the books of the Corporation shall conclusively be deemed the unqualified owner and holder thereof for all purposes and to have capacity to exercise all rights of ownership. Neither the Corporation nor any transfer agent of the Corporation shall be bound to recognize any equitable interest in or claim to such shares on the part of any other person, whether disclosed upon such certificate or otherwise, nor shall they be obliged to see to the execution of any trust or obligation.

ARTICLE VIII

Fiscal Year

The fiscal year of the Corporation shall end on such date in each year as shall be designated from time to time by the board of directors. In the absence of such designation, the fiscal year of the Corporation shall end on September 30 in each year.

ARTICLE IX

Seal

The board of directors may provide a suitable seal containing the name of the Corporation. If deemed advisable by the board of directors, duplicate seals may be provided and kept for the purposes of the Corporation.

ARTICLE X

Amendments

These By-laws shall be subject to alteration, amendment, repeal, or the adoption of new By-laws either by the affirmative vote or written consent of a majority of the whole board of directors, or by the affirmative vote or written consent of the holders of record of a majority of the outstanding stock of the Corporation, present in person or represented by proxy and entitled to vote in respect thereof, given at an annual meeting or at any special meeting at which a quorum shall be present.

SKURKA AEROSPACE INC.

WRITTEN CONSENT OF SOLE STOCKHOLDER

The undersigned, being the sole stockholder of Skurka Aerospace Inc. (the "Corporation"), hereby takes the following action by written consent in lieu of meeting, pursuant to the authority of Section 228 of the General Corporation Law of the State of Delaware:

RESOLVED, that in addition to W. Nicholas Howley and Gregory Rufus who are already directors of the Corporation, Robert Henderson is elected as a director of the Corporation.

IN WITNESS WHEREOF, the undersigned has executed this written consent this 2 day of January, 2005.

Name and Signature

Number of Shares

TransDigm Inc.

100

By: *Gregory Rufus*
Name: Gregory Rufus
Title: _____

BY-LAWS
OF
TACTAIR FLUID CONTROLS, INC.
a New York corporation (the "Corporation")

ARTICLE I - OFFICES

Section 1.1. Location. The address of the office of the Corporation in the State of New York shall be in the City of Liverpool and County of Onondaga or such other address as is designated by resolution of the Board of Directors. The Corporation may also have other offices at such places within or without the State of New York as the Board of Directors may from time to time designate or the business of the Corporation may require.

ARTICLE II - MEETINGS OF SHAREHOLDERS

Section 2.1. Annual Meeting. The annual meeting of the shareholders of the Corporation for the election of directors and for the transaction of such other business as may properly come before the meeting shall be held at the principal office of the Corporation in New York State, or at such other place within or without the State of New York as the Board of Directors may fix, at 10 o'clock A.M., local time, on the last business day of August of each year, commencing with the year 1987.

Section 2.2. Special Meetings. Special meetings of shareholders, unless otherwise prescribed by law, may be called at any time by the Board of Directors, by the President or by order of the Board of Directors pursuant to the written request of the holders of ten percent of the outstanding stock of the Corporation. At any special meeting only such business may be transacted which is related to the purpose or purposes set forth in the notice required by Section 2.4. Special meetings of shareholders shall be held at such place within or without the State of New York as shall be designated in the notice of meeting.

Section 2.3. List of Shareholders Entitled to Vote. A list of shareholders as of the record date determined pursuant to Section 5.8, certified by the corporate officer responsible for its preparation or by the Corporation's transfer agent, shall be produced at any meeting of shareholders upon the request of any shareholder thereat or prior thereto. If the right to vote at any meeting is challenged, the inspectors of election, or person presiding thereat, shall require such list of shareholders to be produced as evidence of the right of the persons challenged to vote at such meeting, and all persons who appear from such list to be shareholders entitled to vote thereat may vote at such meeting.

Section 2.4. Notice of Meetings. Written notice of each annual and special meeting of shareholders, other than any meeting the giving of notice of which is otherwise prescribed by law, stating the place, date and hour of the meeting, and, in the case of a special meeting, indicating that it is being issued by or at the direction of the person or persons calling the meeting and stating the purpose or purposes for which it is called, shall be given, personally or by mail, not less than ten nor more than fifty days before such meeting, to each shareholder entitled to vote thereat. If mailed, such notice shall be deemed given when deposited in the United States mail, postage prepaid, directed to such shareholder at his address as it appears on the record of shareholders of the Corporation. An affidavit of the Secretary or other person giving the notice or the transfer agent of the Corporation that notice has been given shall be evidence of the facts stated therein.

Notice of any meeting need not be given to any shareholder who submits a signed waiver of notice, whether before or after the meeting. The attendance of any shareholder at a meeting, in person or by proxy, without protesting prior to the conclusion of the meeting the lack of notice of such meeting, shall constitute a waiver of notice by him.

Section 2.5. Adjourned Meeting and Notice Thereof. Any meeting of shareholders may be adjourned to another time or

place, and the Corporation may transact at any adjourned meeting any business which might have been transacted on the original date of the meeting. Notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken unless a new record date is fixed for the adjourned meeting by the Board of Directors. If notice of the adjourned meeting is given, such notice shall be given to each shareholder of record entitled to vote at the adjourned meeting in the manner prescribed in Section_2.4.

Section 2.6. Quorum. At any meeting of shareholders, except as otherwise expressly required by law or the Certificate of Incorporation, the holders of a majority of the shares entitled to vote at such meeting shall constitute a quorum for the transaction of any business, provided that when a specified item of business is required to be voted on by a class or series, voting as a class, the holders of a majority of the shares of such class or series shall constitute a quorum for the transaction of such specified item of business. In the absence of a quorum, the shareholders present may adjourn any meeting. When a quorum is once present to organize a meeting, the quorum is not broken by the subsequent withdrawal of any shareholders.

Section 2.7. Voting. Every shareholder of record shall be entitled at every meeting of shareholders to one vote for every share standing in his name on the record of shareholders of the Corporation unless otherwise provided in the Certificate of Incorporation. Directors shall, unless otherwise required by law or by the Certificate of Incorporation, be elected by a plurality of the votes cast at a meeting of shareholders by the holders of shares entitled to vote thereon. Whenever any corporate action, other than the election of directors, is to be taken by vote of the shareholders, it shall, except as otherwise required by law or by the Certificate of Incorporation, be authorized by a majority of the votes cast at a meeting of shareholders by the holders of shares entitled to vote thereon.

Each shareholder entitled to vote at a meeting of shareholders or to express consent or dissent without a meeting may authorize another person or persons to act for him by proxy. Every proxy must be signed by the shareholder or his attorney-in-fact. No proxy shall be valid after the expiration of eleven months from the date thereof unless otherwise provided in the proxy. Every proxy shall be revocable at the pleasure of the shareholder executing it, except as otherwise provided by law.

The Board of Directors, in advance of any shareholders' meeting, may appoint one or more inspectors to act at the meeting or any adjournment thereof. If inspectors are not so appointed, the person presiding at a shareholders' meeting may, and on the request of any shareholder entitled to vote thereat shall, appoint one or more inspectors. In case any person appointed fails to appear or act, the vacancy may be filled by appointment made in advance of the meeting by the Board of Directors or at the meeting by the person presiding thereat.

Section 2.8. Voting Rights of Certain Shares. Neither treasury shares nor shares held by another corporation, if a majority of the shares entitled to vote in the election of directors of such other corporation is held by the Corporation, shall be counted for quorum purposes or entitled to vote. Shares held by an administrator, executor, guardian, conservator, committee, or other fiduciary, except a trustee, may be voted by him, either in person or by proxy, without transfer of such shares into his name. Shares held by a trustee may be voted by him, either in person or by proxy, only after the shares have been transferred into his name as trustee or into the name of his nominee. A shareholder whose shares are pledged shall be entitled to vote such shares until the shares have been transferred into the name of the pledgee, or a nominee of the pledgee.

Section 2.9. Action by Consent of Shareholders. Unless otherwise provided in the Certificate of Incorporation, whenever shareholders are required or permitted by law, the Certificate of Incorporation or these By-Laws to take any action by vote, such action may be taken without a meeting on written consent setting forth the action so taken, signed by the holders of all outstanding shares entitled to vote thereon.

ARTICLE III - BOARD OF DIRECTORS

Section 3.1. General Powers. The business of the Corporation shall be managed by the Board of Directors. The Board of Directors may exercise all such powers of the Corporation and have such authority and do all such lawful acts and things as are permitted by law, the Certificate of Incorporation or these By-Laws.

Section 3.2. Number of Directors. The number of directors constituting the entire Board of Directors shall not be less than three, except that if all the shares of the Corporation are owned beneficially and of record by less than three shareholders, the number of directors may be less than three but not less than the number of shareholders. Subject to such limitation, such number may be fixed or increased or decreased by amendment of the By-Laws or by action of the shareholders, or the Board of Directors, by vote of a majority of the entire Board of Directors; provided that no decrease shall shorten the

term of any incumbent director. Initially the number of directors shall be one unless otherwise fixed pursuant to this Section.

As used in this Article, "entire Board of Directors" means the total number of directors which the Corporation would have if there were no vacancies in the Board of Directors.

Section 3.3. Election. Directors of the Corporation shall be elected to hold office until the next annual meeting. At each annual meeting of shareholders or at a special meeting in lieu of the annual meeting called for such purpose, a new Board of Directors of the Corporation shall be elected.

Section 3.4. Term. Each director shall hold office until the expiration of the term for which he is elected and until his successor is duly elected and qualified, except in the event of the earlier termination of his term of office by reason of death, resignation, removal or other reason.

Section 3.5. Resignation and Removal. Any director may resign at any time upon written notice to the Board of Directors, the President or the Secretary. The resignation of any director shall take effect upon receipt of notice thereof or at such later time as shall be specified in such notice, and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Any director may be removed for cause by vote of the shareholders or the Board of Directors. Any director may be removed without cause by vote of the shareholders.

Section 3.6. Vacancies. Newly created directorships resulting from an increase in the number of directors and vacancies occurring in the Board of Directors for any reason except the removal of directors without cause may be filled by vote of a majority of the directors then in office, although less than a quorum exists.

Vacancies occurring in the Board of Directors by reason of the removal of directors without cause may be filled only by vote of the shareholders.

A director elected to fill a vacancy shall be elected to hold office for the unexpired term of his predecessor.

Section 3.7. Quorum and Voting. Unless the Certificate of Incorporation provides otherwise, at all meetings of the Board of Directors a majority of the entire Board of Directors shall constitute a quorum for the transaction of business or of any specified item of business. A director interested in a contract or transaction may be counted in determining the presence of a quorum at a meeting of the Board of Directors which authorizes the contract or transaction. In the absence of a quorum, a majority of the directors present may adjourn the meeting until a quorum shall be present.

The vote of the majority of the directors present at the time of a vote at a meeting at which a quorum is present shall be the act of the Board of Directors unless the Certificate of Incorporation shall require the vote of a greater number.

Section 3.8. Regulations. The Board of Directors may adopt such rules and regulations for the conduct of the business and management of the Corporation, not inconsistent with the law or the Certificate of Incorporation or these By-Laws, as the Board of Directors may deem proper.

The Board of Directors may hold its meetings at any place within or without the State of New York as the Board of Directors may from time to time determine.

Section 3.9. Annual Meeting of Board of Directors. An annual meeting of the Board of Directors shall be called and held for the purpose of organization, election of officers and transaction of any other business. If such meeting is held promptly after and at the place specified for the annual meeting of shareholders, no notice of the annual meeting of the Board of Directors need be given. Otherwise such annual meeting shall be held at such time (not more than thirty days after the annual meeting of shareholders) and place as may be specified in a notice of the meeting.

Section 3.10. Regular Meetings. Regular meetings of the Board of Directors shall be held at the time and place as shall from time to time be determined by the Board of Directors. After there has been such determination and notice thereof has been given to each member of the Board of Directors, no further notice shall be required for any such regular meeting. Except as otherwise provided by law, any business may be transacted at any regular meeting.

Section 3.11. Special Meetings. Special meetings of the Board of Directors may, unless otherwise prescribed by law, be called from time to time by the President, and shall be called by the President or the Secretary upon the written request of a majority of the Board of Directors then in office directed to the President or the Secretary. Except as provided below, notice of any special meeting of the Board of Directors, stating the time and place of such special meeting, shall be given to each director.

Section 3.12. Notice of Meeting; Waiver of Notice. Notice of any meeting of the Board of Directors shall be deemed to be duly given to a director (i) if mailed to such director, addressed to him at his address as it appears upon the books of the Corporation, or at the address last made known in writing to the Corporation by such director at the address to which such notices are to be sent, at least four days before the day

on which such meeting is to be held, or (ii) if sent to him at such address by telegraph, cable, radio or wireless not later than two days before the day on which such meeting is to be held, or (iii) if delivered to him personally or orally, by telephone or otherwise, not later than the day before the day on which such meeting is to be held. Each such notice shall state the time and place of the meeting.

Notice of any meeting of the Board of Directors need not be given to any director who submits a signed waiver of notice whether before or after the holding of such meeting, or who attends such meeting without protesting, prior thereto or at its commencement, the lack of notice to him.

Section 3.13. Committees of Directors. The Board of Directors may, by resolution or resolutions passed by a majority of the entire Board of Directors, designate one or more committees each committee to consist of one or more of the directors of the Corporation.

Vacancies in membership of any committee shall be filled by the vote of a majority of the entire Board of Directors. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent member at any meeting of the committee. Members of a committee shall hold office for such period as may be fixed by a resolution adopted by a majority of the entire Board of

Directors, subject, however, to removal at any time by the vote of the Board of Directors.

Section 3.14. Powers and Duties of Committees. Except as otherwise provided by law, any committee, to the extent provided in the resolution or resolutions creating such committee, shall have all the authority of the Board of Directors except that no such committee shall have authority as to the following matters: (1) the submission to shareholders of any action that needs shareholders' approval; (2) the filling of vacancies in the Board of Directors or in any committee, (3) the fixing of compensation of the directors for serving on the Board of Directors or on any committee; (4) the amendment or repeal of the By-Laws, or the adoption of new By-Laws; and (5) the amendment or repeal of any resolution of the Board of Directors which by its terms shall not be so amendable or repealable.

Each committee may adopt its own rules of procedure and may meet at stated times or on such notice as such committee may determine. Except as otherwise permitted by these By-Laws, each committee shall keep regular minutes of its proceedings and report the same to the Board of Directors when required.

Section 3.15. Compensation of Directors. The Board of Directors may from time to time, in its discretion, fix the

amounts which shall be payable to directors and to members of any committee of the Board of Directors for attendance at the meetings of the Board of Directors or of such committee and for services rendered to the Corporation.

Section 3.16. Action Without Meeting. Unless otherwise provided by the Certificate of Incorporation, any action required or permitted to be taken by the Board of Directors or any committee thereof may be taken without a meeting if all members of the Board of Directors or the committee consent in writing to the adoption of a resolution authorizing the action. The resolution and written consents thereto by the members of the Board of Directors or committee shall be filed with the minutes of the proceedings of the Board of Directors or the committee.

Section 3.17. Action by Conference Telephone. Unless otherwise provided by the Certificate of Incorporation, any one or more members of the board or any committee thereof may participate in a meeting of such board or committee by means of a conference telephone or similar communications equipment allowing all persons participating in the meeting to hear each other at the same time. Participation by such means shall constitute presence in person at a meeting.

ARTICLE IV - OFFICERS

Section 4.1. Principal Officers. The principal officers of the Corporation shall be elected by the Board of Directors and may include a Chairman of the Board, a President, a Secretary and a Treasurer and may, at the discretion of the Board of Directors, also include one or more Vice Presidents and a Controller. Any two or more principal offices may be held by the same person except the offices of President and Secretary, except that when all of the issued and outstanding stock of the Corporation is held by one person, such person may hold all or any combination of offices.

Section 4.2. Election of Principal Officers; Term of Office. The principal officers of the Corporation shall be elected annually by the Board of Directors at each annual meeting of the Board of Directors.

If the Board of Directors shall fail to fill any principal office at an annual meeting, or if any vacancy in any principal office shall occur, or if any principal office shall be newly created, such principal office may be filled at any regular or special meeting of the Board of Directors.

Each principal officer shall hold office until his successor is duly elected and qualified, or until his earlier death, resignation or removal, provided that the terms of office of all Vice Presidents shall terminate at any annual

meeting of the Board of Directors at which the President or any Vice President is elected.

Section 4.3. Subordinate Officers, Agents and Employees. In addition to the principal officers, the Corporation may have one or more Assistant Treasurers, Assistant Secretaries and such other subordinate officers, agents and employees as the Board of Directors may deem advisable, each of whom shall hold office for such period and have such authority and perform such duties as the Board of Directors, the President, or any officer designated by the Board of Directors, may from time to time determine. The Board of Directors at any time may appoint and remove, or may delegate to any principal officer, the power to appoint and to remove, any subordinate officer, agent or employee of the Corporation.

Section 4.4. Delegation of Duties of Officers. The Board of Directors may delegate the duties and powers of any officer of the Corporation to any other officer or to any director for a specified period of time for any reason that the Board of Directors may deem sufficient.

Section 4.5. Removal of Officers. Any officer of the Corporation may be removed with or without cause by resolution of the Board of Directors.

Section 4.6. Resignation. Any officer may resign at any time by giving written notice of resignation to the Board

of Directors, to the President or to the Secretary. Any such resignation shall take effect upon receipt of such notice or at any later time specified therein. Unless otherwise specified in the notice, the acceptance of a resignation shall not be necessary to make the resignation effective.

Section 4.7. President. The President will be the chief executive officer, and direct the policies, of the Corporation. He will have general management of the business, property and affairs of the Corporation, and general supervision, direction and control over its other officers, its employees and its agents. The President will preside at all meetings of the Board of Directors and shareholders at which he is present.

Section 4.8. Vice President. In the absence or disability of the President or if the office of President be vacant, the Vice Presidents in the order determined by the Board of Directors, or if no such determination has been made in the order of their seniority, shall perform the duties and exercise the powers of the President, subject to the right of the Board of Directors at any time to extend or confine such powers and duties or to assign them to others. Any Vice President may have such additional designation in his title as the Board of Directors may determine. The Vice Presidents shall generally assist the President in such manner as the President shall direct. Each Vice President shall have such other powers and

perform such other duties as may be assigned to him from time to time by the Board of Directors or the President.

Section 4.9. Secretary. The Secretary shall act as Secretary of all meetings of shareholders and of the Board of Directors at which he is present, shall record all the proceedings of all such meetings in a book to be kept for that purpose, shall have supervision over the giving and service of notices of the Corporation, and shall have supervision over the care and custody of the corporate records and the corporate seal of the Corporation. The Secretary shall be empowered to affix the corporate seal to documents the execution of which, on behalf of the Corporation under its seal, is duly authorized, and when so affixed may attest the same. The Secretary shall have all powers and duties usually incident to the office of Secretary, except as specifically limited by a resolution of the Board of Directors. The Secretary shall have such other powers and perform such other duties as may be assigned to him from time to time by the Board of Directors or the President.

Section 4.10. Treasurer. The Treasurer shall have general supervision over the care and custody of the funds and over the receipts and disbursements of the Corporation and shall cause the funds of the Corporation to be deposited in the name of the Corporation in such banks or other depositories as the Board of Directors may designate. The Treasurer shall have

supervision over the care and safekeeping of the securities of the Corporation. The Treasurer shall have all powers and duties usually incident to the office of Treasurer, including the duties of Controller if none is elected, except as specifically limited by a resolution of the Board of Directors. The Treasurer shall have such other powers and perform such other duties as may be assigned to him from time to time by the Board of Directors or the President.

Section 4.11. Controller. The Controller, if one is elected, shall be the chief accounting officer of the Corporation and shall have supervision over the maintenance and custody of the accounting operations of the Corporation, including the keeping of accurate accounts of all receipts and disbursements and all other financial transactions. The Controller shall have all powers and duties usually incident to the office of Controller except as specifically limited by a resolution of the Board of Directors. The Controller shall have such other powers and perform such other duties as may be assigned to him from time to time by the Board of Directors or the President.

Section 4.12. Bond. The Board of Directors shall have power, to the extent permitted by law, to require any officer, agent or employee of the Corporation to give bond for the faithful discharge of his duties in such form and with such surety or sureties as the Board of Directors may determine.

ARTICLE V - CAPITAL STOCK

Section 5.1. Issuance of Certificates for Stock.

Each shareholder of the Corporation shall be entitled to a certificate or certificates in such form as shall be approved by the Board of Directors, certifying the number of shares of capital stock of the Corporation owned by such shareholder.

Section 5.2. Signatures on Stock Certificates. Certificates for shares of capital stock of the Corporation shall be signed by, or in the name of the Corporation by, the President or a Vice President and by the Secretary, the Treasurer, an Assistant Secretary or an Assistant Treasurer and shall bear the corporate seal of the Corporation or a printed or engraved facsimile thereof.

If any such certificate is countersigned by a transfer agent or registered by a registrar, other than the Corporation or its employee, any other signature on the certificate may be a facsimile. In case any officer who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer before such certificate is issued, such certificate may be issued by the Corporation with the same effect as if such signer were such officer at the date of issue.

Section 5.3. Stock Ledger. A record of all certificates for capital stock issued by the Corporation shall be kept

by the Secretary or any other officer, employee or agent designated by the Board of Directors. Such record shall show the name and address of such shareholder, the number and class of shares held by each and the date when each became the owner of record thereof, and, in the case of certificates which have been cancelled, the dates of cancellation thereof.

The Corporation shall be entitled to treat the holder of record of shares of capital stock as shown on the stock ledger as the owner thereof and as the person entitled to receive dividends thereon, to vote such shares, to receive notice of meetings, and for all other purposes. Prior to due presentment for registration of transfer of any certificate for shares of capital stock of the Corporation, the Corporation shall not be bound to recognize any equitable or other claim to or interest in any share of capital stock represented by such certificate on the part of any other person whether or not the Corporation shall have express or other notice thereof.

Section 5.4. Regulations Relating to Transfer. The Board of Directors may make such rules and regulations as it may deem expedient, not inconsistent with law, the Certificate of Incorporation or these By-Laws, concerning issuance, transfer and registration of certificates for shares of capital stock of the Corporation. The Board of Directors may appoint, or authorize any principal officer to appoint, one or more

transfer clerks or one or more transfer agents and one or more registrars and may require all certificates for capital stock to bear the signature or signatures of any of them.

Section 5.5. Transfers. Transfers of capital stock shall be made on the books of the Corporation only upon delivery to the Corporation or its transfer agent of (i) a written direction of the registered holder named in the certificate or such holder's attorney lawfully constituted in writing, (ii) the certificate for the shares of capital stock being transferred, and (iii) a written assignment of the shares of capital stock evidenced thereby.

Section 5.6. Cancellation. Each certificate for capital stock surrendered to the Corporation for exchange or transfer shall be cancelled and no new certificate or certificates shall be issued in exchange for any existing certificate (other than pursuant to Section 5.7) until such existing certificate shall have been cancelled.

Section 5.7. Lost, Destroyed, Stolen and Mutilated Certificates. In the event that any certificate for shares of capital stock of the Corporation shall be mutilated the Corporation shall issue a new certificate in place of such mutilated certificate. In case any such certificate shall be lost, stolen or destroyed the Corporation may, in the discretion of the Board of Directors or a committee designated thereby with

power so to act, issue a new certificate for capital stock in the place of any such lost, stolen or destroyed certificate. The applicant for any substituted certificate or certificates shall surrender any mutilated certificate or, in the case of any lost, stolen or destroyed certificate, furnish satisfactory proof of such loss, theft or destruction of such certificate and of the ownership thereof. The Board of Directors or such committee may, in its discretion, require the owner of a lost, stolen or destroyed certificate, or his representatives, to furnish to the Corporation a bond with an acceptable surety or sureties and in such sum as will be sufficient to indemnify the Corporation against any claim that may be made against it on account of the lost, stolen or destroyed certificate or the issuance of such new certificate. A new certificate may be issued without requiring a bond when, in the judgment of the Board of Directors, it is proper to do so.

Section 5.8. Fixing of Record Dates. (a) The Board of Directors may fix, in advance, a record date, which shall not be more than fifty nor less than ten days before the date of any meeting of shareholders, nor more than fifty days prior to any other action, for the purpose of determining shareholders entitled to notice of or to vote at such meeting of shareholders or any adjournment thereof, or to express consent or dissent to corporate action in writing without a meeting, or to

receive payment of any dividend or allotment of any rights, or for the purpose of any other action.

(b) If no record date is fixed by the Board of Directors:

(i) The record date for determining shareholders entitled to notice of or to vote at a meeting of shareholders shall be at the close of business on the next day preceding the day on which notice is given, or if no notice is given, the day on which the meeting is held;

(ii) The record date for determining shareholders for any purpose other than that specified in subparagraph (i) shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

(c) A determination of shareholders of record entitled to notice of or to vote at a meeting of shareholders shall apply to any adjournment of the meeting, provided that the Board of Directors may fix a new record date for the adjourned meeting.

ARTICLE VI - INDEMNIFICATION

Section 6.1. Indemnification. The Corporation shall, to the full extent permitted by applicable law, indemnify any person

(a) made a party to an action by or in the right of the Corporation to procure a judgment in its favor, by

reason of the fact that he, his testator or intestate, is or was a director or officer of the Corporation, against the reasonable expenses, including attorneys' fees, actually and necessarily incurred by him in connection with the defense of such action, or in connection with an appeal therein;

(b) made, or threatened to be made, a party to an action or proceeding other than one by or in the right of the Corporation to procure a judgment in its favor, whether civil or criminal, including an action by or in the right of any other corporation, of any type or kind, domestic or foreign, which any director or officer of the Corporation served in any capacity at the request of the Corporation, by reason of the fact that he, his testator or intestate, was a director or officer of the Corporation, or served such other corporation in any capacity, against judgments, fines, amounts paid in settlement and reasonable expenses, including attorneys' fees actually and necessarily incurred as a result of such action or proceeding, or any appeal therein.

A person who has been wholly successful, on the merits or otherwise, in the defense of a civil or criminal action or proceeding of the character described in subsection (a) or (b) above shall be entitled to indemnification as authorized by law.

Any indemnification by the Corporation pursuant hereto shall be only made in the manner and to the extent authorized by applicable law, and any such indemnification shall not be deemed exclusive of any other rights to which those seeking indemnification may otherwise be entitled.

Section 6.2. Indemnification Insurance. To the extent permitted by law, the Corporation shall have power 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, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such.

ARTICLE VII - MISCELLANEOUS PROVISIONS

Section 7.1. Corporate Seal. The seal of the Corporation shall be circular in form with the name of the Corporation in the circumference and the words and figures "Corporate Seal - 1986, New York" in the center. The seal may be used by causing it to be affixed or impressed, or a facsimile thereof may be reproduced or otherwise used in such manner as the Board of Directors may determine.

Section 7.2. Fiscal Year. The fiscal year of the Corporation shall end on December 31st of each year, or such

other twelve consecutive months as the Board of Directors may designate.

Section 7.3. Execution of Instruments, Contracts, etc. All checks, drafts, bills of exchange, notes or other obligations or orders for the payment of money shall be signed in the name of the Corporation by such officer or officers or person or persons as the Board of Directors may from time to time designate.

Except as otherwise provided by law, the Board of Directors, any committee given specific authority in the premises by the Board of Directors, or any committee given authority to exercise generally the powers of the Board of Directors during the intervals between meetings of the Board of Directors, may authorize any officer, employee or agent, in the name of and on behalf of the Corporation, to enter into or execute and deliver deeds, bonds, mortgages, contracts and other obligations or instruments, and such authority may be general or confined to specific instances.

All applications, written instruments and papers required by any department of the United States Government or by any state, county, municipal or other governmental authority, may be executed in the name of the Corporation by any principal officer or subordinate officer of the Corporation, or, to the extent designated for such purpose from time to time by the

Board of Directors, by an employee or agent of the Corporation. Such designation may contain the powers to substitute, in the discretion of the person named, one or more other persons.

ARTICLE VIII - AMENDMENTS

Section 8.1. By Shareholders. These By-Laws may be amended or repealed, or new By-Laws may be adopted, at any meeting of shareholders.

Section 8.2. By Directors. These By-Laws may be amended or repealed, or new By-Laws may be adopted, by the Board of Directors.

TACTAIR FLUID CONTROLS, INC.

WRITTEN ACTION OF THE SOLE STOCKHOLDER WITHOUT A MEETING

The undersigned, being the holder of all of the issued and outstanding stock of Tactair Fluid Controls, Inc. (the "Company"), hereby approves and adopts the following resolution by this written consent, pursuant to Section 615 of the New York Business Corporation Law:

RESOLVED, that the size of the Board of Directors be reduced in number to two (2); and

RESOLVED FURTHER, that the following persons are hereby chosen and elected as directors of the Company to serve until the next annual meeting and until their respective successors are duly elected and qualified:

Terrance M. Paradie
Halle F. Terrion

IN WITNESS WHEREOF, the undersigned has executed this instrument as of March 31, 2017.

YOUNG & FRANKLIN INC.



Terrance M. Paradie, Chief Executive
Officer

BY-LAWS
OF
Texas Rotronics, Inc.

ARTICLE I - OFFICES

The office of the Corporation shall be located in the City and State designated in the Articles of Incorporation. The Corporation may also maintain offices at such other places within or without the United States as the Board of Directors may, from time to time, determine.

ARTICLE II - MEETING OF SHAREHOLDERS

Section 1 - Annual Meetings:

The annual meeting of the shareholders of the Corporation shall be held within five months after the close of the fiscal year of the Corporation, for the purpose of electing directors, and transacting such other business as may properly come before the meeting.

Section 2 - Special Meetings:

Special meetings of the shareholders may be called at any time by the Board of Directors or by the President, and shall be called by the President or the Secretary at the written request of the holders of ten per cent (10%) of the shares then outstanding and entitled to vote thereat, or as otherwise required under the provisions of the Business Corporation Act.

Section 3 - Place of Meetings:

All meetings of shareholders shall be held at the principal office of the Corporation, or at such other places as shall be designated in the notices or waivers of notice of such meetings.

Section 4 - Notice of Meetings:

(a) Written notice of each meeting of shareholders, whether annual or special, stating the time when and place where it is to be held, shall be served either personally or by mail, not less than ten or more than fifty days before the meeting, upon each shareholder of record entitled to vote at such meeting, and to any other shareholder to whom the giving of notice may be required by law. Notice of a special meeting shall also state the purpose or purposes for which the meeting is called, and shall indicate that it is being issued by, or at the direction of, the person or persons calling the meeting. If, at any meeting, action is proposed to be taken that would, if taken, entitle shareholders to receive payment for their shares pursuant to the Business Corporation Act, the notice of such meeting shall include a statement of that purpose and to that effect. If mailed, such notice shall be directed to each such shareholder at his address, as it appears on the records of the shareholders of the Corporation, unless he shall have previously filed with the Secretary of the Corporation a written request that notices intended for him be mailed to some other address, in which case, it shall be mailed to the address designated in such request.

(b) Notice of any meeting need not be given to any person who may become a shareholder of record after the mailing of such notice and prior to the meeting, or to any shareholder who attends such meeting, in person or by proxy, or to any shareholder who, in person or by proxy, submits a signed waiver of notice either before or after such meeting. Notice of any adjourned meeting of shareholders need not be given, unless otherwise required by statute.

Section 5 - Quorum:

(a) Except as otherwise provided herein, or by statute, or in the Articles of Incorporation (such Articles and any amendments thereof being hereinafter collectively referred to as the "Articles of Incorporation"), at all meetings of shareholders of the Corporation, the presence at the commencement of such meetings in person or by proxy of shareholders holding of record a majority of the total number of shares of the Corporation then issued and outstanding and entitled to vote, shall be necessary and sufficient to constitute a quorum for the transaction of any business. The withdrawal of any shareholder after the commencement of a meeting shall have no effect on the existence of a quorum, after a quorum has been established at such meeting.

(b) Despite the absence of a quorum at any annual or special meeting of shareholders, the shareholders, by a majority of the votes cast by the holders of shares entitled to vote thereon, may adjourn the meeting. At any such adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the meeting as originally called if a quorum had been present.

Section 6 - Voting:

(a) Except as otherwise provided by statute or by the Articles of Incorporation, any corporate action, other than the election of directors to be taken by vote of the shareholders, shall be authorized by a majority of votes cast at a meeting of shareholders by the holders of shares entitled to vote thereon.

(b) Except as otherwise provided by statute or by the Articles of Incorporation, at each meeting of shareholders, each holder of record of shares of the Corporation entitled to vote thereat, shall be entitled to one vote for each share registered in his name on the books of the Corporation.

(c) Each shareholder entitled to vote or to express consent or dissent without a meeting, may do so by proxy; provided, however, that the instrument authorizing such proxy to act shall have been executed in writing by the shareholder himself, or by his attorney-in-fact thereunto duly authorized in writing. No proxy shall be valid after the expiration of eleven months from the date of its execution, unless the persons executing it shall have specified therein the length of time it is to continue in force. Such instrument shall be exhibited to the Secretary at the meeting and shall be filed with the records of the Corporation.

(d) Any resolution in writing, signed by all of the shareholders entitled to vote thereon, shall be and constitute action by such shareholders to the effect therein expressed, with the same force and effect as if the same had been duly passed by unanimous vote at a duly called meeting of shareholders and such resolution so signed shall be inserted in the Minute Book of the Corporation under its proper date.

ARTICLE III - BOARD OF DIRECTORS

Section 1 - Number, Election and Term of Office:

(a) The number of the directors of the Corporation shall be **3** (), unless and until otherwise determined by vote of a majority of the entire Board of Directors. The number of Directors shall not be less than three, unless all of the outstanding shares are owned beneficially and of record by less than three shareholders, in which event the number of directors shall not be less than the number of shareholders.

(b) Except as may otherwise be provided herein or in the Articles of Incorporation, the members of the Board of Directors of the Corporation, who need not be shareholders, shall be elected by a majority of the votes cast at a meeting of shareholders, by the holders of shares entitled to vote in the election.

(c) Each director shall hold office until the annual meeting of the shareholders next succeeding his election, and until his successor is elected and qualified, or until his prior death, resignation or removal.

Section 2 - Duties and Powers:

The Board of Directors shall be responsible for the control and management of the affairs, property and interests of the Corporation, and may exercise all powers of the Corporation, except as are in the Articles of Incorporation or by statute expressly conferred upon or reserved to the shareholders.

Section 3 - Annual and Regular Meetings; Notice:

(a) A regular annual meeting of the Board of Directors shall be held immediately following the annual meeting of the shareholders at the place of such annual meeting of shareholders.

(b) The Board of Directors, from time to time, may provide by resolution for the holding of other regular meetings of the Board of Directors, and may fix the time and place thereof.

(c) Notice of any regular meeting of the Board of Directors shall not be required to be given and, if given, need not specify the purpose of the meeting; provided, however, that in case the Board of Directors shall fix or change the time or place of any regular meeting, notice of such action shall be given to each director who shall not have been present at the meeting at which such action was taken within the time limited, and in the

manner set forth in paragraph (b) of Section 4 of this Article III, with respect to special meetings, unless such notice shall be waived in the manner set forth in paragraph (c) of such Section 4.

Section 4 - Special Meetings; Notice:

(a) Special meetings of the Board of Directors shall be held whenever called by the President or by one of the directors, at such time and place as may be specified in the respective notices or waivers of notice thereof.

(b) Notice of special meetings shall be mailed directly to each director, addressed to him at his residence or usual place of business, at least two (2) days before the day on which the meeting is to be held, or shall be sent to him at such place by telegram, radio or cable, or shall be delivered to him personally or given to him orally, not later than the day before the day on which the meeting is to be held. A notice, or waiver of notice, except as required by Section 8 of this Article III, need not specify the purpose of the meeting.

(c) Notice of any special meeting shall not be required to be given to any director who shall attend such meeting without protesting prior thereto or at its commencement, the lack of notice to him, or who submits a signed waiver of notice, whether before or after the meeting. Notice of any adjourned meeting shall not be required to be given.

Section 5 - Chairman:

At all meetings of the Board of Directors, the Chairman of the Board, if any and if present, shall preside. If there shall be no Chairman, or he shall be absent, then the President shall preside, and in his absence, a Chairman chosen by the Directors shall preside.

Section 6 - Quorum and Adjournments:

(a) At all meetings of the Board of Directors, the presence of a majority of the entire Board shall be necessary and sufficient to constitute a quorum for the transaction of business, except as otherwise provided by law, by the Articles of Incorporation, or by these By-Laws.

(b) A majority of the directors present at the time and place of any regular or special meeting, although less than a quorum, may adjourn the same from time to time without notice, until a quorum shall be present.

Section 7 - Manner of Acting:

(a) At all meetings of the Board of Directors, each director present shall have one vote, irrespective of the number of shares of stock, if any, which he may hold.

(b) Except as otherwise provided by statute, by the Articles of Incorporation, or these By-Laws, the action of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board of Directors. Any action authorized in writing, by all of the directors entitled to vote thereon and filed with the minutes of the Corporation shall be the act of the Board of Directors with the same force and effect as if the same had been passed by unanimous vote at a duly called meeting of the Board.

Section 8 - Vacancies:

Any vacancy in the Board of Directors occurring by reason of an increase in the number of directors, or by reason of the death, resignation, disqualification, removal (unless a vacancy created by the removal of a director by the shareholders shall be filled by the shareholders at the meeting at which the removal was effected) or inability to act of any director, or otherwise, shall be filled for the unexpired portion of the term by a majority vote of the remaining directors, though less than a quorum, at any regular meeting or special meeting of the Board of Directors called for that purpose.

Section 9 - Resignation:

Any director may resign at any time by giving written notice to the Board of Directors, the President or the Secretary of the Corporation. Unless otherwise specified in such written notice, such resignation shall take effect upon receipt thereof by the Board of Directors or such officer, and the acceptance of such resignation shall not be necessary to make it effective.

Section 10 - Removal:

Any director may be removed with or without cause at any time by the shareholders, at a special meeting of the shareholders called for that purpose, and may be removed for cause by action of the Board.

Section 11 - Salary:

No stated salary shall be paid to directors, as such, for their services, but by resolution of the Board of Directors a fixed sum and expenses of attendance, if any, may be allowed for attendance at each regular or special meeting of the Board; provided, however, that nothing herein contained shall be construed to preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

Section 12 - Contracts:

(a) No contract or other transaction between this Corporation and any other Corporation shall be impaired, affected or invalidated nor shall any director be liable in any way by reason of the fact that any one or more of the directors of this Corporation is or are interested in, or is a director or officer, or are directors or officers of such other Corporation, provided that such facts are disclosed or made known to the Board of Directors.

(b) Any director, personally and individually, may be a party to or may be interested in any contract or transaction of this Corporation, and no director shall be liable in any way by reason of such interest, provided that the fact of such interest be disclosed or made known to the Board of Directors, and provided that the Board of Directors shall authorize, approve or ratify such contract or transaction by the vote (not counting the vote of any such director) of a majority of a quorum, notwithstanding the presence of any such director at the meeting at which such action is taken. Such director or directors may be counted in determining the presence of a quorum at such meeting. This Section shall not be construed to impair or invalidate or in any way affect any contract or other transaction which would otherwise be valid under the law (common, statutory or otherwise) applicable thereto.

Section 13 - Committees:

The Board of Directors, by resolution adopted by a majority of the entire Board, may from time to time designate from among its members an executive committee and such other committees, and alternate members thereof, as they deem desirable, each consisting of three or more members, with such powers and authority (to the extent permitted by law) as may be provided in such resolution.

Each such committee shall serve at the pleasure of the Board.

ARTICLE IV - OFFICERS

Section 1 - Number, Qualifications, Election and Term of Office:

(a) The officers of the Corporation shall consist of a President, a Secretary, a Treasurer, and such other officers, including a Chairman of the Board of Directors, and one or more Vice Presidents, as the Board of Directors may from time to time deem advisable. Any officer other than the Chairman of the Board of Directors may be, but is not required to be, a director of the Corporation. Any two or more offices may be held by the same person, except the offices of President and Secretary.

(b) The officers of the Corporation shall be elected by the Board of Directors at the regular annual meeting of the Board following the annual meeting of shareholders.

(c) Each officer shall hold office until the annual meeting of the Board of Directors next succeeding his election, and until his successor shall have been elected and qualified, or until his death, resignation or removal.

Section 2 - Resignation:

Any officer may resign at any time by giving written notice of such resignation to the Board of Directors, or to the President or the Secretary of the Corporation. Unless otherwise specified in such written notice, such resignation shall take effect upon receipt thereof by the Board of Directors or by such officer, and the acceptance of such resignation shall not be necessary to make it effective.

Section 3 - Removal:

Any officer may be removed, either with or without cause, and a successor elected by the Board at any time.

Section 4 - Vacancies:

A vacancy in any office by reason of death, resignation, inability to act, disqualification, or any other cause, may at any time be filled for the unexpired portion of the term by the Board of Directors.

Section 5 - Duties of Officers:

Officers of the Corporation shall, unless otherwise provided by the Board of Directors, each have such powers and duties as generally pertain to their respective offices as well as such powers and duties as may be set forth in these By-Laws, or may from time to time be specifically conferred or imposed by the Board of Directors. The President shall be the chief executive officer of the Corporation.

Section 6 - Sureties and Bonds:

In case the Board of Directors shall so require, any officer, employee or agent of the Corporation shall execute to the Corporation a bond in such sum, and with such surety or sureties as the Board of Directors may direct, conditioned upon the faithful performance of his duties to the Corporation, including responsibility for negligence and for the accounting for all property, funds or securities of the Corporation which may come into his hands.

Section 7 - Shares of Other Corporations:

Whenever the Corporation is the holder of shares of any other corporation, any right or power of the Corporation as such shareholder (including the attendance, acting and voting at shareholders' meetings and execution of waivers, consents, proxies or other instruments) may be exercised on behalf of the Corporation by the President, any Vice President, or such other person as the Board of Directors may authorize.

ARTICLE V - SHARES OF STOCK

Section 1 - Certificate of Stock:

(a) The certificates representing shares of the Corporation shall be in such form as shall be adopted by the Board of Directors, and shall be numbered and registered in the order issued. They shall bear the holder's name and the number of shares, and shall be signed by (i) the Chairman of the Board or the President or a Vice President, and (ii) the Secretary or any Assistant Secretary, and may bear the corporate seal.

(b) No certificate representing shares shall be issued until the full amount of consideration therefor has been paid, except as otherwise permitted by law.

(c) The Board of Directors may authorize the issuance of certificates for fractions of a share which shall entitle the holder to exercise voting rights, receive dividends and participate in liquidating distributions, in proportion to the fractional holdings; or it may authorize the payment in cash of the fair value of fractions of a share as of the time when those entitled to receive such fractions are determined; or it may authorize the issuance, subject to such conditions as may be permitted by law, of scrip in registered or bearer form over the signature of an officer or agent of the Corporation, exchangeable as therein provided for full shares, but such scrip shall not entitle the holder to any rights of a shareholder, except as therein provided.

Section 2 - Lost or Destroyed Certificates:

The holder of any certificate representing shares of the Corporation shall immediately notify the Corporation of any loss or destruction of the certificate representing the same. The Corporation may issue a new certificate in the place of any certificate theretofore issued by it, alleged to have been lost or destroyed. On production of such evidence of loss or destruction as the Board of Directors in its discretion may require, the Board of Directors may, in its discretion, require the owner of the lost or destroyed certificate, or his legal representatives, to give the Corporation a bond in such sum as the Board may direct, and with such surety or sureties as may be satisfactory to the Board, to indemnify the Corporation against any claims, loss, liability or damage it may suffer on account of the issuance of the new certificate. A new certificate may be issued without requiring any such evidence or bond when, in the judgment of the Board of Directors, it is proper so to do.

Section 3 - Transfers of Shares:

(a) Transfers of shares of the Corporation shall be made on the share records of the Corporation only by the holder of record thereof, in person or by his duly authorized attorney, upon surrender for cancellation of the certificate or certificates representing such shares, with an assignment or power of transfer endorsed thereon or delivered therewith, duly executed, with such proof of the authenticity of the signature and of authority to transfer and of payment of transfer taxes as the Corporation or its agents may require.

(b) The Corporation shall be entitled to treat the holder of record of any share or shares as the absolute owner thereof for all purposes and, accordingly, shall not be bound to recognize any legal, 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 expressly provided by law.

Section 4 - Record Date:

In lieu of closing the share records of the Corporation, the Board of Directors may fix, in advance, a date not exceeding fifty days, nor less than ten days, as the record date for the determination of shareholders entitled to receive notice of, or to vote at, any meeting of shareholders, or to consent to any proposal without a meeting, or for the purpose of determining shareholders entitled to receive payment of any dividends, or allotment of any rights, or for the purpose of any other action. If no record date is fixed, the record date for the determination of shareholders entitled to notice of or to vote at a meeting of shareholders shall be at the close of business on the day next preceding the day on which notice is given, or, if no notice is given, the day on which the meeting is held; the record date for determining shareholders for any other purpose shall be at the close of business on the day on which the resolution of the directors relating thereto is adopted. When a determination of shareholders of record entitled to notice of or to vote at any meeting of shareholders has been made as provided for herein, such determination shall apply to any adjournment thereof, unless the directors fix a new record date for the adjourned meeting.

ARTICLE VI - DIVIDENDS

Subject to applicable law, dividends may be declared and paid out of any funds available therefor, as often, in such amounts, and at such time or times as the Board of Directors may determine.

ARTICLE VII - FISCAL YEAR

The fiscal year of the Corporation shall be fixed by the Board of Directors from time to time, subject to applicable law.

ARTICLE VIII - CORPORATE SEAL

The corporate seal, if any, shall be in such form as shall be approved from time to time by the Board of Directors.

ARTICLE IX - AMENDMENTS

Section 1 - By Shareholders:

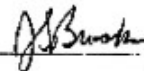
All by-laws of the Corporation shall be subject to alteration or repeal, and new by-laws may be made, by a majority vote of the shareholders at the time entitled to vote in the election of directors.

Section 2 - By Directors:

The Board of Directors shall have power to make, adopt, alter, amend and repeal, from time to time, by-laws of the Corporation; provided, however, that the shareholders entitled to vote with respect thereto as in this Article IX above-provided may alter, amend or repeal by-laws made by the Board of Directors, except that the Board of Directors shall have no power to change the quorum for meetings of shareholders or of the Board of Directors, or to change any provisions of the by-laws with respect to the removal of directors or the filling of vacancies in the Board resulting from the removal by the shareholders. If any by-law regulating an impending election of directors is adopted, amended or repealed by the Board of Directors, there shall be set forth in the notice of the next meeting of shareholders for the election of directors, the by-law so adopted, amended or repealed, together with a concise statement of the changes made.

I hereby certify that the foregoing is a full and correct copy of the first by laws of the Corporation, as adopted by the Board of Directors in accordance with the requirements of the Business Corporation Act.

Date: August 15, 1999

x 
Secretary

TEXAS ROTRONICS, INC.
JOINT WRITTEN ACTION OF SOLE SHAREHOLDER
AND BOARD OF DIRECTORS IN LIEU OF A MEETING

The undersigned, being the holder of all of the issued and outstanding stock, and all of the members of the Board of Directors of Texas Rotronics, Inc., a Texas corporation (the "Corporation"), hereby approve and adopt the following resolutions by this written consent thereto pursuant to Section 9.10 of the Texas Business Corporation Act:

Resignation of Director and Reduction of Board of Directors

RESOLVED, that the Board of Directors of the Corporation, hereby accepts the resignation of James Riley effective January 1, 2012;

FURTHER RESOLVED, that the size of the Board of Directors be reduced in number to two (2).

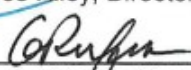
IN WITNESS WHEREOF, the undersigned have hereunto subscribed its and their names as of the ___ day of December, 2011.

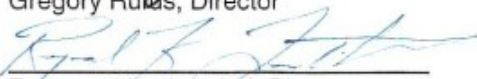
WESTERN SKY INDUSTRIES, LLC

By: MCKECHNIE AEROSPACE INVESTMENTS, INC.,
its sole member

By: 
Gregory Rufus, Secretary and Treasurer

 12/7/11
James Riley, Director


Gregory Rufus, Director


Raymond Laubenthal, Director

BY-LAWS OF YOUNG & FRANKLIN INC.**ARTICLE I
MEETINGS OF THE SHAREHOLDERS**

Section 1.01 Annual Meeting. The annual meeting of the shareholders of the corporation, for the election of directors and for the transaction of such other business as may be set forth in the notice of the meeting, shall be held each year at such time and such place within or without the State of New York as the board of directors shall determine and the notice of the meeting or a duly executed waiver of notice shall specify.

Section 1.02 Special Meetings. Special meetings of the shareholders for any purpose or purposes may be called by the board of directors and shall be held on such date, at such time and place, either within or without the State of New York, as shall be determined by the board of directors and stated in the notice of the meeting. The only business which may be conducted at a special meeting, other than procedural matters and matters relating to the conduct of the meeting, shall be the matter or matters described in the notice of such meeting.

Section 1.03 Notice of Meetings. Written notice of each meeting of the shareholders shall be given, personally or by mail (written or electronic), not fewer than ten nor more than 60 days before the date of the meeting, to each shareholder entitled to vote at such meeting. If mailed, such notice shall be deposited in the United States mail, with first-class postage thereon prepaid, directed to the shareholder at his or her address as it appears on the record of shareholders, or, if a shareholder shall have filed with the Secretary of the corporation a written request that notices to such shareholder be mailed to some other address, then directed to such shareholder at such other address. If transmitted electronically, such notice shall be directed to the shareholder's electronic address supplied to the Secretary of the corporation or as otherwise directed pursuant to the shareholder's authorization or instructions. The notice shall state the place, date and hour of the meeting, the purpose or purposes for which the meeting is called if a special meeting and, unless it is the annual meeting, indicate that the notice is being issued by or at the direction of the person or persons calling the meeting. The notice need not refer to the approval of minutes or to other matters normally incident to the conduct of the meeting. Except for such matters, the business which may be transacted at the meeting shall be confined to business which is related to the purpose or purposes set forth in the notice.

Section 1.04 Waiver of Notice. Notice of meeting need not be given to any shareholder who submits a waiver of notice. Waiver of notice may be written or electronic and may be submitted before or after the meeting. The attendance of any shareholder at a meeting,

in person or by proxy, without protesting prior to the conclusion of the meeting the lack of notice of such meeting, shall constitute a waiver of such notice by him or her.

Section 1.05 Procedure. At each meeting of shareholders, the order of business and all other matters of procedure shall be determined by the person presiding at the meeting.

Section 1.06 List of Shareholders. A list of shareholders as of the record date, certified by the corporate officer responsible for its preparation or by a transfer agent, shall be produced at any meeting of shareholders upon the request thereat or prior thereto of any shareholder. If the right to vote at any meeting is challenged, the inspectors of election, or person presiding thereat, shall require such list of shareholders to be produced as evidence of the right of the persons challenged to vote at such meeting, and all persons who appear from such list to be shareholders entitled to vote thereat may vote at such meeting.

Section 1.07 Quorum. At each meeting of shareholders for the transaction of any business, a quorum must be present to organize such meeting. Except as otherwise provided by law, a quorum shall consist of the holders of a majority of the votes of shares of the corporation entitled to vote at such meeting, present either in person or by proxy. When a quorum is once present to organize a meeting of the shareholders, it is not broken by the subsequent withdrawal of any shareholders.

Section 1.08 Adjournments. The shareholders entitled to vote who are present in person or by proxy at any meeting of shareholders, whether or not a quorum shall be present at the meeting, shall have power by a majority vote to adjourn the meeting from time to time without notice other than announcement at the meeting of the time and place to which the meeting is adjourned. At any adjourned meeting at which a quorum is present any business may be transacted that might have been transacted on the original date of the meeting, and the shareholders entitled to vote at the meeting on the original date (whether or not they were present thereat), and no others, shall be entitled to vote at such adjourned meeting. However, if after the adjournment the board fixes a new record date for the adjourned meeting, notice of the adjourned meeting shall be given to each shareholder of record on the new record date entitled to such notice.

Section 1.09 Voting; Proxies. Each shareholder of record shall be entitled at every meeting of shareholders to one vote for each share having voting power standing in the shareholder's name on the record of shareholders of the corporation on the record date fixed pursuant to Section 6.03 of these by-laws unless otherwise provided in the certificate of incorporation of the corporation. Each shareholder entitled to vote at a meeting of shareholders may vote in person, or may authorize another person or persons to act for the shareholder by proxy. Any proxy shall be signed by the shareholder or the

shareholder's duly authorized agent or attorney-in-fact and shall be delivered to the secretary of the meeting. The signature of a shareholder on any proxy, including without limitation a telegram, cablegram, facsimile signature or other means of electronic transmission, may be printed, stamped or written, provided such signature is executed or adopted by the shareholder with intention to authenticate the proxy. No proxy shall be valid after the expiration of 11 months from the date of its execution unless otherwise provided in the proxy. Every proxy shall be revocable at the pleasure of the shareholder executing it, except as otherwise provided by law.

Directors shall, except as otherwise provided by law or the certificate of incorporation, be elected by a plurality of the votes cast by the holders of shares entitled to vote in the election. All other corporate action to be taken by vote of the shareholders shall, except as otherwise provided by law, the certificate of incorporation or these by-laws, be authorized by a majority of the votes cast in favor of such action at a meeting of the shareholders. The vote for directors, or upon any corporate action coming before a meeting of shareholders, shall not be by ballot unless the person presiding at such meeting shall so direct or any shareholder, present in person or by proxy and entitled to vote thereon, shall so demand. Except as otherwise provided in the certificate of incorporation, an abstention shall not constitute a vote cast.

Section 1.10 Appointment of Inspectors of Election. The board of directors may, in advance of any meeting of the shareholders, appoint one or more inspectors to act at the meeting or any adjournment thereof, and shall do so if the corporation has a class of voting shares that is listed on a national securities exchange or authorized for quotation on an interdealer quotation system of a registered national securities association. If inspectors are not so appointed in advance of the meeting, the person presiding at such meeting may, and on the request of any shareholder entitled to vote thereat shall, appoint one or more inspectors. In case any inspector appointed fails to appear or act, the vacancy may be filled by appointment made by the board of directors in advance of the meeting or at the meeting by the person presiding thereat. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector at such meeting with strict impartiality and according to the best of his or her ability. No person who is a candidate for the office of director of the corporation shall act as an inspector at any meeting of the shareholders at which directors are elected.

Section 1.11 Duties of Inspectors of Election. Whenever one or more inspectors of election may be appointed as provided in these by-laws, he or she or they shall determine the number of shares outstanding and entitled to vote, the shares represented at the meeting, the existence of a quorum, and the validity and effect of proxies, and shall receive votes, ballots or consents, hear and determine all challenges and questions arising in connection with the right to vote, count and tabulate all votes, ballots, or consents,

determine the result, and do such acts as are proper to conduct the election or vote with fairness to all shareholders.

Section 1.12 Written Consent of Shareholders Without a Meeting. Whenever by law shareholders are required or permitted to take any action by vote, such action may be taken without a meeting on written consent, setting forth the action so taken, signed by the holders of outstanding shares 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. Every written consent shall bear the date of signature of each shareholder who signs the consent, and no written consent shall be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered in the manner required by this Section 1.12, written consents signed by the requisite holders to take action are delivered to the corporation. Written consent thus given by the holders of all such number of shares as is required under this Section 1.12 shall have the same effect as a valid vote of holders of such number of shares. Prompt notice of the taking of any corporate action without a meeting by less than unanimous written consent shall be given to those shareholders who have not consented in writing.

ARTICLE II DIRECTORS

Section 2.01 Number and Qualifications. The board of directors shall consist of one or more members. Subject to any provision as to the number of directors contained in the certificate of incorporation or these by-laws, the exact number of directors shall be fixed from time to time by action of the shareholders or by vote of a majority of the entire board of directors, provided that no decrease in the number of directors shall shorten the term of any incumbent director. If the number of directors be increased at any time, the vacancy or vacancies in the board arising from such increase shall be filled as provided in Section 2.06. If the number of directors is not otherwise fixed as provided above, it shall be one. Each of the directors shall be at least 18 years of age.

Section 2.02 Powers. The business of the corporation shall be managed under the direction of the board of directors, which shall have and may exercise all of the powers of the corporation except such as are expressly conferred upon the shareholders by law, by the certificate of incorporation or by these by-laws.

Section 2.03 Election and Term of Office. Except as otherwise provided by law or these by-laws, each director of the corporation shall be elected at an annual meeting of shareholders or at any meeting of the shareholders held in lieu of such annual meeting, which meeting, for the purposes of these by-laws, shall be deemed the annual meeting,

and shall hold office until the next annual meeting of shareholders and until his or her successor has been elected and qualified.

Section 2.04 Resignation. Any director of the corporation may resign at any time by giving his or her resignation to the President or any Vice President or the Secretary. Such resignation shall take effect at the time specified therein; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Section 2.05 Removal of Directors. Any or all of the directors may be removed with or without for cause by vote of the shareholders.

Section 2.06 Vacancies. Except as otherwise provided by law or these by-laws, newly created directorships resulting from an increase in the number of directors and vacancies occurring in the board of directors for any reason, except the removal of directors without cause, may be filled by vote of a majority of the directors then in office, even if less than a quorum exists. Any such newly created directorships and vacancies occurring in the board of directors for any reason may also be filled by vote of the shareholders at any meeting of shareholders and notice of which shall have referred to the proposed election. If any such newly created directorships or vacancies occurring in the board of directors for any reason shall not be filled prior to the next annual meeting of shareholders, they shall be filled by vote of the shareholders at such annual meeting. A director elected to fill a vacancy, unless elected by the shareholders, shall hold office until the next meeting of shareholders at which the election of directors is in the regular order of business, and until his or her successor has been elected and qualified.

Section 2.07 Directors' Fees. Directors may receive a fee for their services as directors and travelling and other out-of-pocket expenses incurred in attending any regular or special meeting of the board. The fee may be a fixed sum to be paid for attending each meeting of the board of directors or a fixed sum to be paid monthly, quarterly or semi-annually, irrespective of the number of meetings attended or not attended. The amount of the fee, if any, and the basis on which it shall be paid shall be determined by the board of directors. Nothing herein contained shall preclude any director from serving the corporation in any other capacity and receiving compensation for such services.

Section 2.08 First Meeting of Newly Elected Directors. The first meeting of the newly elected board of directors may be held immediately after the annual meeting of shareholders and at the same place as such annual meeting of shareholders, provided a quorum be present, and no notice of such meeting shall be necessary. In the event such first meeting of the newly elected board of directors is not held at said time and place, the same shall be held as provided in Section 2.09.

Section 2.09 Meetings of Directors. Regular and special meetings of the board of directors may be held at such times and at such places, within or without the State of New York as the board of directors or the President, or, in the absence or disability of the President, any Vice President, may determine.

Section 2.10 Notice of Meetings. Regular meetings of the board of directors may be held without notice if the times and places of such meetings are fixed by the board. Except as provided in the preceding sentence, notice of each regular or special meeting of the board of directors to be held in accordance with Section 2.09, stating the time and place thereof, shall be given by the President, the Secretary, any Assistant Secretary or any member of the board to each member of the board (a) not less than three days before the meeting by depositing the notice in the United States mail, with first-class postage thereon prepaid, directed to each member of the board at the address designated by him or her for such purpose (or, if none is designated, at his or her last known address), or (b) not less than 24 hours before the meeting by either (i) delivering the same to each member of the board personally, (ii) sending the same by telephone, telegraph, cable, electronic mail or other transmission method to the address or contact information designated by him or her for such purposes (or, if none is designated, to his or her last known address or other contact information) or (iii) delivering the notice to the address or other contact information designated by him or her for such purpose (or, if none is designated, to his or her last known address or contact information). Notice of a meeting need not be given to any director who submits a signed waiver of notice whether before or after the meeting. The notice of any meeting of the board of directors need not specify the purpose or purposes for which the meeting is called, except as provided in Section 2.06 and as provided in Article IX of these by-laws.

Section 2.11 Quorum and Action By the Board. At all meetings of the board of directors, except as otherwise provided by law, the certificate of incorporation or these by-laws, a quorum shall be required for the transaction of business and shall consist of not less than a majority of the entire board, and the vote of a majority of the directors present shall decide any question that may come before the meeting. A majority of the directors present, whether or not a quorum is present, may adjourn any meeting to another time or place without notice other than announcement at the meeting of the time and place to which the meeting is adjourned.

Section 2.12 Procedure. The order of business and all other matters of procedure at every meeting of directors may be determined by the person presiding at the meeting.

Section 2.13 Action Without a Meeting. Any action required or permitted to be taken by the board or any committee thereof may be taken without a meeting if all members of the board or the committee consent in writing to the adoption of a resolution authorizing

the action. The resolution and the written consents thereto by the members of the board or committee shall be filed with the minutes of the proceedings of the board or committee.

Section 2.14 Presence at a Meeting By Telephone. Unless otherwise restricted by the certificate of incorporation of the corporation, members of the board of directors or any committee thereof may participate in a meeting of such board or committee by means of a conference telephone or similar communications equipment allowing all persons participating in the meeting to hear each other at the same time. Participation in a meeting by such means shall constitute presence in person at such meeting.

ARTICLE III COMMITTEES OF DIRECTORS

Section 3.01 Designation of Committees. The board of directors, by resolution or resolutions adopted by a majority of the entire board, may designate from among its members an executive committee and other committees, each consisting of one or more directors, and may designate one or more directors as alternate members of any such committee, who may replace any absent or disqualified member or members at any meeting of such committee. In the interim between meetings of the board of directors, the executive committee, if and to the extent permitted in the resolution designating such committee, shall have all the authority of the board of directors except as otherwise provided by law and shall serve at the pleasure of the board of directors. Each other committee so designated shall have such name as may be provided from time to time in the resolution or resolutions, shall serve at the pleasure of the board of directors and shall have, to the extent provided in such resolution or resolutions, all the authority of the board of directors except as otherwise provided by law.

Section 3.02 Acts and Proceedings. All acts done and power and authority conferred by the executive committee from time to time within the scope of its authority shall be, and may be deemed to be, and may be specified as being, the act and under the authority of the board of directors. The executive committee and each other committee shall keep regular minutes of its proceedings and report its actions to the board of directors when required.

Section 3.03 Compensation. Members of the executive committee or of any other committee may receive such compensation for their services as the board of directors shall from time to time determine.

ARTICLE IV
OFFICERS

Section 4.01 Officers. The board of directors may annually appoint or elect a President, one or more Vice Presidents, a Secretary and a Treasurer. The board of directors may from time to time appoint or elect such additional officers as it may determine. Such additional officers shall have such titles and such authority and perform such duties as the board of directors may from time to time prescribe.

Section 4.02 Term of Office. The President, each Vice President, the Secretary and the Treasurer shall, unless otherwise determined by the board of directors, hold office until the first meeting of the board following the next annual meeting of shareholders and until their successors have been appointed or elected and qualified. Each additional officer appointed or elected by the board of directors shall hold office for such term as shall be determined from time to time by the board of directors and until his or her successor has been appointed or elected and qualified. Any officer, however, may be removed or have his or her authority suspended by the board of directors at any time, with or without cause. If the office of any officer becomes vacant for any reason, the board of directors shall have the power to fill such vacancy.

Section 4.03 The President. The President shall be the chief executive officer of the corporation. He or she shall preside at all meetings of the shareholders and of the board of directors. He or she shall have the general powers and duties of supervision and management of the corporation which usually pertain to his or her office, and shall perform all such other duties as are properly required of him or her by the board of directors.

Section 4.04 The Vice Presidents. Each Vice President may be designated by such title as the board of directors may determine, and each such Vice President in such order of seniority as may be determined by the board, shall, in the absence or disability of the President, or at his or her request, perform the duties and exercise the powers of the President. Each Vice President also shall have such powers and perform such duties as usually pertain to his or her office or as are properly required of him or her by the board of directors.

Section 4.05 The Secretary and Assistant Secretaries. The Secretary shall issue notices of all meetings of shareholders and directors where notices of such meetings are required by law or these by-laws. He or she shall attend all meetings of shareholders and of the board of directors and keep the minutes thereof. He or she shall affix the corporate seal to and sign such instruments as require the seal and his or her signature and shall

perform such other duties as usually pertain to his or her office or as are properly required of him or her by the board of directors.

Each Assistant Secretary may, in the absence or disability of the Secretary, or at his or her request or the request of the President, perform the duties and exercise the powers of the Secretary, and shall perform such other duties as the board of directors shall prescribe.

Section 4.06 The Treasurer and Assistant Treasurers. The Treasurer shall have the care and custody of all the moneys and securities of the corporation. He or she shall cause to be entered in books of the corporation to be kept for that purpose full and accurate accounts of all moneys received by him or her and paid by him or her on account of the corporation. The Treasurer shall make and sign such reports, statements and instruments as may be required of him or her by the board of directors or by the laws of the United States or by any state, country or other jurisdiction in which the corporation transacts business, and shall perform such other duties as usually pertain to his or her office or as are properly required of him or her by the board of directors.

Each Assistant Treasurer may, in the absence or disability of the Treasurer, or at his or her request or the request of the President, perform the duties and exercise the powers of the Treasurer and shall perform such other duties as the board of directors shall prescribe.

Section 4.07 Officers Holding Two or More Offices. Any two or more offices may be held by the same person. When all the issued and outstanding shares of the corporation are held by one individual, such individual may hold all or any combination of offices.

Section 4.08 Duties of Officers May be Delegated. In case of the absence or disability of any officer of the corporation or in case of a vacancy in any office or for any other reason that the board of directors may deem sufficient, the board of directors, except as otherwise provided by law, may temporarily delegate the powers or duties of any officer to any other officer or to any director.

Section 4.09 Compensation. The compensation of the President shall be determined by the board of directors. The compensation of all other employees shall be fixed by the President or the President's designees within such limits as may be prescribed by the board of directors.

Section 4.10 Security. The board of directors may require any officer, agent or employee of the corporation to give security for the faithful performance of his or her

duties, in such amount as may be satisfactory to the board. Such security may be in the form of a fidelity bond obtained by the corporation at its expense.

ARTICLE V
INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 5.01 Right of Indemnification. Each director or officer of the corporation, whether or not then in office, and any person whose testator or intestate was such a director or officer, shall be indemnified by the corporation for the defense of, or in connection with, any threatened, pending or completed actions or proceedings and appeals therein, whether civil, criminal, administrative or investigative, in accordance with and to the fullest extent permitted by the Business Corporation Law of the State of New York or other applicable law, as such law now exists or may hereafter be adopted or amended, against, without limitation, all judgments, fines, amounts paid in settlements, and all expenses, including attorneys' and other experts' fees, costs and disbursements, actually and reasonably incurred by such person as a result of such action or proceeding, or actually and reasonably incurred by such person (a) in making an application for payment of such expenses before any court or other governmental body, (b) in otherwise seeking to enforce the provisions of this Section 5.01, or (c) in securing or enforcing such person's right under any policy or director or officer liability insurance provided by the corporation; provided, however, that the corporation shall provide indemnification in connection with an action or proceeding (or part thereof) initiated by such a director or officer only if such action or proceeding (or part thereof) was authorized by the board of directors.

Section 5.02 Advancement of Expenses. Expenses incurred by a director or officer in connection with any action or proceeding as to which indemnification may be given under Section 5.01 may be paid by the corporation in advance of the final disposition of such action or proceeding upon (a) the receipt of an undertaking by or on behalf of such director or officer to repay such advancement in case such director or officer is ultimately found not to be entitled to indemnification as authorized by this Article V and (b) approval by the board of directors acting by a quorum consisting of directors who are not parties to such action or proceeding or, if such a quorum is not obtainable, then approval by the shareholders. To the extent permitted by law, the board of directors or, if applicable, the shareholders, shall not be required to find that the director or officer has met the applicable standard of conduct provided by law for indemnification in connection with such action or proceeding before the corporation makes any advance payment of expenses hereunder.

Section 5.03 Availability and Interpretation. To the extent permitted under applicable law, the rights of indemnification and to the advancement of expenses provided in this Article V (a) shall be available with respect to events occurring prior to the adoption of

this Article V, (b) shall continue to exist after any rescission or restrictive amendment of this Article V with respect to events occurring prior to such rescission or amendment, (c) shall be interpreted on the basis of applicable law in effect at the time of the occurrence of the event or events giving rise to the action or proceeding or, at the sole discretion of the director or officer or, if applicable, the testator or intestate of such director or officer seeking such rights, on the basis of applicable law in effect at the time such rights are claimed and (d) shall be in the nature of contract rights that may be enforced in any court of competent jurisdiction as if the corporation and the director or officer for whom such rights are sought were parties to a separate written agreement.

Section 5.04 Other Rights. The rights of indemnification and to the advancement of expenses provided in this Article V shall not be deemed exclusive of any other rights to which any director or officer of the corporation or other person may now or hereafter be otherwise entitled whether contained in the certificate of incorporation, these by-laws, a resolution of the shareholders, a resolution of the board of directors or an agreement providing for such indemnification, the creation of such other rights being hereby expressly authorized. Without limiting the generality of the foregoing, the rights of indemnification and to the advancement of expenses provided in this Article V shall not be deemed exclusive of any rights, pursuant to statute or otherwise, of any director or officer of the corporation or other person in any action or proceeding to have assessed or allowed in his or her favor, against the corporation or otherwise, his or her costs and expenses incurred therein or in connection therewith or any part thereof.

Section 5.05 Severability. If this Article V or any part hereof shall be held unenforceable in any respect by a court of competent jurisdiction, it shall be deemed modified to the minimum extent necessary to make it enforceable, and the remainder of this Article V shall remain fully enforceable.

ARTICLE VI SHARES

Section 6.01 Certificate of Shares. The shares of the corporation shall be represented by certificates which shall be numbered and shall be entered in the records of the corporation as they are issued. Each share certificate shall when issued state upon the face thereof that the corporation is formed under the laws of the State of New York, the name of the person or persons to whom issued, and the number and class of shares and the designation of the series, if any, which such certificate represents and shall be signed by the President or a Vice President and by the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary, and shall be sealed with the seal of the corporation or a facsimile thereof. The signatures of the officers upon a certificate may be facsimiles if (a) the certificate is countersigned by a transfer agent or registered by a registrar other than the corporation itself or its employee or (b) the corporation's shares are listed on a

registered national securities exchange. In case any officer who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer before such certificate is issued, it may be issued by the corporation with the same effect as if he or she were such officer at the date of issue. No certificate shall be valid until countersigned by a transfer agent if the corporation has a transfer agent, or until registered by a registrar if the corporation has a registrar.

Section 6.02 Transfers of Shares. Shares of the corporation shall be transferable on the books of the corporation by the holder thereof, in person or by duly authorized attorney, upon the surrender of the certificate representing the shares to be transferred, properly endorsed. Except as otherwise provided by law, the corporation shall be entitled to treat the holder of record of any share as the owner thereof and shall not be bound to recognize any equitable or other claim to or interest in such share on the part of any other person whether or not it shall have express or other notice thereof. The board of directors, to the extent permitted by law, shall have power and authority to make all rules and regulations as it may deem expedient concerning the issue, transfer and registration of share certificates and may appoint one or more transfer agents and registrars of the shares of the corporation.

Section 6.03 Fixing of Record Time. The board of directors may fix, in advance, a day and hour not more than 60 days nor less than ten days before the date on which any meeting of the shareholders entitled to notice of and to vote at such meeting and at all adjournments thereof shall be determined; and, in the event such record date and time are fixed by the board of directors, no one other than the holders of record on such date and time of shares entitled to notice of and to vote at such meeting shall be entitled to notice of or to vote at such meeting or any adjournment thereof. If a record date and time shall not be fixed by the board of directors for the determination of shareholders entitled to notice of and to vote at any meeting of the shareholders, shareholders of record at the close of business on the day next preceding the day on which notice of such meeting is given, and no others, shall be entitled to notice of and to vote at such meeting or any adjournment thereof; provided, however, that if no notice of such meeting is given, shareholders of record at the close of business on the day next preceding the day on which such meeting is held, and no others, shall be entitled to vote at such meeting or any adjournment thereof.

The board of directors may fix, in advance, a day and hour not more than 60 days before the date fixed for the payment of a dividend of any kind or the allotment of any rights, as the record time for the determination of shareholders entitled to receive such dividend or rights, and in such case only shareholders of record at the date and time so fixed shall be entitled to receive such dividend or rights; *provided, however*, that if no record date and time for the determination of shareholders entitled to receive such dividend or rights are fixed, shareholders of record at the close of business on the day on

which the resolution of the board of directors authorizing the payment of such dividend or the allotment of such rights is adopted shall be entitled to receive such dividend or rights.

Section 6.04 Record of Shareholders. The corporation shall keep at its office in the State of New York, or at the office of its transfer agent or registrar in this state, a record containing the names and addresses of all shareholders, the number and class of shares held by each and the dates when they respectively became the owners of record thereof.

Section 6.05 Lost Share Certificates. The board of directors may in its discretion cause a new certificate for shares to be issued by the corporation in place of any certificate theretofore issued by it, alleged to have been lost or destroyed, and the board may require the owner of the lost or destroyed certificate, or his or her legal representatives, to give the corporation a bond sufficient to indemnify the corporation against any claim that may be made against it on account of the alleged loss or destruction of any such certificate or the issuance of any such new certificate; but the board of directors may in its discretion refuse to issue such new certificate save upon the order of a court having jurisdiction in such matters.

ARTICLE VII FINANCES

Section 7.01 Corporate Funds. The funds of the corporation shall be deposited in its name with such banks, trust companies or other depositories as the board of directors or the officers may from time to time designate. All checks, notes, drafts and other negotiable instruments of the corporation shall be signed by such officer or officers, employee or employees, agent or agents as the board of directors may from time to time designate. No officers, employees or agents of the corporation, alone or with others, shall have power to make any checks, notes, drafts or other negotiable instruments in the name of the corporation or to bind the corporation thereby, except as provided in this section.

Section 7.02 Fiscal Year. The fiscal year of the corporation shall be designated by resolution of the board of directors.

Section 7.03 Loans to Directors. The corporation may not lend money to or guarantee the obligation of a director of the corporation unless (a) the particular loan or guarantee is approved by the shareholders, with the holders of a majority of the shares entitled to vote thereon constituting a quorum, but shares held of record or beneficially by directors who are benefited by such loan or guarantee shall not be entitled to vote or to be included in the determination of a quorum, or (b) the board determines that the loan or guarantee benefits the corporation and either approves the specific loan or guarantee or a general

plan authorizing loans and guarantees. The fact that a loan or guarantee is made in violation of this section does not affect the borrower's liability on the loan.

**ARTICLE VIII
CORPORATE SEAL**

Section 8.01 Form of Seal. The seal of the corporation, if it elects to have one, shall be in such form as may be determined from time to time by the board of directors. The seal on any corporate obligation for the payment of money may be facsimile.

**ARTICLE IX
AMENDMENTS**

Section 9.01 Procedure for Amending By-laws. By-laws of the corporation may be adopted, amended or repealed at any meeting of shareholders, notice of which shall have referred to the proposed action, by a majority of the votes cast by the holders of the shares of the corporation at the time entitled to vote in the election of any directors, or at any meeting of the board of directors, notice of which shall have referred to the proposed action, by the vote of a majority of the entire board of directors.

YOUNG & FRANKLIN INC.

WRITTEN ACTION OF THE SOLE STOCKHOLDER WITHOUT A MEETING

The undersigned, being the holder of all of the issued and outstanding stock of Young & Franklin Inc. (the "Company"), hereby approves and adopts the following resolution by this written consent, pursuant to Section 615 of the New York Business Corporation Law:

RESOLVED, that the size of the Board of Directors be reduced in number to two (2); and

RESOLVED FURTHER, that the following persons are hereby chosen and elected as directors of the Company to serve until the next annual meeting and until their respective successors are duly elected and qualified:

Terrance M. Paradie
Halle F. Terrion

IN WITNESS WHEREOF, the undersigned has executed this instrument as of March 31, 2017.

TRANSDIGM INC.



Terrance M. Paradie, Executive Vice
President and Chief Financial Officer

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

FIFTEENTH SUPPLEMENTAL INDENTURE

Dated as of July 31, 2018

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 **FIFTEENTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of July 31, 2018, is entered into by and among Skandia, Inc., an Illinois corporation (the “**Guaranteeing Subsidiary**”), 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**”), AvtechTyee, 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 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**”), 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**”), Interiors In Flight LLC, a Delaware limited liability company (“**Interiors In Flight**”), North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (“**North Hills Overseas**”), Kirkhill, Inc., a Delaware corporation (“**Kirkhill**”), TransDigm UK Holdings plc, a United Kingdom public limited company (“**TD UK**”), Extant Components Group Holdings, Inc., a Delaware corporation (“**Extant**”), Extant Components Group Intermediate, Inc., a Delaware corporation (“**Extant Intermediate**”), Symetrics Industries, LLC, a Florida limited liability company (“**Symetrics Industries**”), Symetrics Technology Group, LLC, a Florida limited liability company (“**Symetrics Technology**”), TEAC Aerospace Holdings, Inc., a Delaware corporation (“**TEAC Holdings**”), and TEAC Aerospace Technologies, Inc., a Delaware corporation (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 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, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool, Interiors In Flight, North Hills, North Hills Overseas, Kirkhill, TD UK, Extant, Extant Intermediate, Symetrics Industries, Symetrics Technology and TEAC Holdings, the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below.

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, the Tenth Supplemental Indenture thereto, dated as of March 31, 2017, the Eleventh Supplemental Indenture thereto, dated as of May 9, 2017, the Twelfth Supplemental Indenture thereto, dated as of March 30, 2018, the Thirteenth Supplemental Indenture thereto, dated as of May 8, 2018, and the Fourteenth Supplemental Indenture thereto, dated as of May 22, 2018, 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 Subsidiary 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, the Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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.** The Guaranting Subsidiary 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 the Guaranting Subsidiary (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 Guaranting Subsidiary 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 Guaranting Subsidiary, 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.

SKANDIA, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

TRANSDIGM INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVIATION TECHNOLOGIES, INC.
AVIONICS SPECIALTIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRIDPORT HOLDINGS, INC.
BRIDPORT-AIR CARRIER, INC.
BRUCE AEROSPACE INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace US LLC, as its sole member
By: McKechnie Aerospace DE, Inc., as its sole member
EXTANT COMPONENTS GROUP HOLDINGS, INC.
EXTANT COMPONENTS GROUP INTERMEDIATE, INC.

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

HARTWELL CORPORATION
ILC HOLDINGS, INC.
JOHNSON LIVERPOOL LLC

By: Young & Franklin Inc., as its sole member

KIRKHILL INC.
MARATHONNORCO AEROSPACE, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE HOLDINGS, INC.
MCKECHNIE AEROSPACE US LLC

By: McKechnie Aerospace DE, Inc., as its sole member

NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
SYMETRICS INDUSTRIES, LLC

By: Symetrics Technology Group, LLC, as its sole member

By: Extant Components Group Intermediate, Inc., as its sole member

SYMETRICS TECHNOLOGY GROUP, LLC
By: Extant Components Group Intermediate, Inc., as its sole member
TACTAIR FLUID CONTROLS, INC.
TEAC AEROSPACE HOLDINGS, INC.
TEAC AEROSPACE TECHNOLOGIES, INC.
TEXAS ROTRONICS, INC.
TRANSICOIL LLC

By: Aviation Technologies, Inc., as its sole member

YOUNG & FRANKLIN INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

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
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/ James L. Skulina
Name: James L. Skulina

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

Title: Executive Vice President and Interim Chief Financial Officer

AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Chairman of the Board and Chief Executive Officer

BRIDPORT ERIE AVIATION, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Chairman of the Board and President

TRANSDIGM UK HOLDINGS PLC

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Director

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

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

By: /s/ Karen Yu
Name: Karen Yu
Title: Vice President

[Signature page to the Fifteenth 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**

TWELFTH SUPPLEMENTAL INDENTURE

Dated as of July 31, 2018

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 **TWELFTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of July 31, 2018, is entered into by and among Skandia, Inc., an Illinois corporation (the “**Guaranteeing Subsidiary**”), 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**”), AvtechTyee, 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 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**”), 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**”), Interiors In Flight LLC, a Delaware limited liability company (“**Interiors In Flight**”), North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (“**North Hills Overseas**”), Kirkhill, Inc., a Delaware corporation (“**Kirkhill**”), TransDigm UK Holdings plc, a United Kingdom public limited company (“**TD UK**”), Extant Components Group Holdings, Inc., a Delaware corporation (“**Extant**”), Extant Components Group Intermediate, Inc., a Delaware corporation (“**Extant Intermediate**”), Symetrics Industries, LLC, a Florida limited liability company (“**Symetrics Industries**”), Symetrics Technology Group, LLC, a Florida limited liability company (“**Symetrics Technology**”), TEAC Aerospace Holdings, Inc., a Delaware corporation (“**TEAC Holdings**”), and TEAC Aerospace Technologies, Inc., a Delaware corporation (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 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, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool, Interiors In Flight, North Hills, North Hills Overseas, Kirkhill, TD UK, Extant, Extant Intermediate, Symetrics Industries, Symetrics Technology and TEAC Holdings, the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below.

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, the Seventh Supplemental Indenture thereto, dated as of March 31, 2017, the Eighth Supplemental Indenture thereto, dated as of May 9, 2017, the Ninth Supplemental Indenture thereto, dated as of March 30, 2018, the Tenth Supplemental Indenture thereto, dated as of May 8, 2018, and the Eleventh Supplemental Indenture thereto, dated as of May 22, 2018, 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 Subsidiary 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, the Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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 the Guaranteeing Subsidiary (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 Subsidiary 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 Subsidiary, 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.

SKANDIA, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

TRANSDIGM INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVIATION TECHNOLOGIES, INC.
AVIONICS SPECIALTIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRIDPORT HOLDINGS, INC.
BRIDPORT-AIR CARRIER, INC.
BRUCE AEROSPACE INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace US LLC, as its sole member
By: McKechnie Aerospace DE, Inc., as its sole member
EXTANT COMPONENTS GROUP HOLDINGS, INC.
EXTANT COMPONENTS GROUP INTERMEDIATE, INC.

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

HARTWELL CORPORATION

ILC HOLDINGS, INC.

JOHNSON LIVERPOOL LLC

By: Young & Franklin Inc., as its sole member

KIRKHILL INC.

MARATHONNORCO AEROSPACE, INC.

MCKECHNIE AEROSPACE DE, INC.

MCKECHNIE AEROSPACE HOLDINGS, INC.

MCKECHNIE AEROSPACE US LLC

By: McKechnie Aerospace DE, Inc., as its sole member

NORTH HILLS SIGNAL PROCESSING CORP.

NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.

PEXCO AEROSPACE, INC.

PNEUDRAULICS, INC.

SEMCO INSTRUMENTS, INC.

SHIELD RESTRAINT SYSTEMS, INC.

SKURKA AEROSPACE INC.

SYMETRICS INDUSTRIES, LLC

By: Symetrics Technology Group, LLC, as its sole member

By: Extant Components Group Intermediate, Inc., as its sole member

SYMETRICS TECHNOLOGY GROUP, LLC

By: Extant Components Group Intermediate, Inc., as its sole member

TACTAIR FLUID CONTROLS, INC.

TEAC AEROSPACE HOLDINGS, INC.

TEAC AEROSPACE TECHNOLOGIES, INC.

TEXAS ROTRONICS, INC.

TRANSICOIL LLC

By: Aviation Technologies, Inc., as its sole member

YOUNG & FRANKLIN INC.

By: /s/ Jonathan D. Crandall

Name: Jonathan D. Crandall

Title: Treasurer

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

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/ James L. Skulina

Name: James L. Skulina

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

Title: Executive Vice President and Interim Chief Financial Officer

AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Chairman of the Board and Chief Executive Officer

BRIDPORT ERIE AVIATION, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Chairman of the Board and President

TRANSDIGM UK HOLDINGS PLC

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Director

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

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

By: /s/ Karen Yu
Name: Karen Yu
Title: Vice President

[Signature page to the Twelfth 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

TWELFTH SUPPLEMENTAL INDENTURE

Dated as of July 31, 2018
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 **TWELFTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of July 31, 2018, is entered into by and among Skandia, Inc., an Illinois corporation (the “**Guaranteeing Subsidiary**”), 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**”), AvtechTyee, 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 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**”), 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**”), Interiors In Flight LLC, a Delaware limited liability company (“**Interiors In Flight**”), North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (“**North Hills Overseas**”), Kirkhill, Inc., a Delaware corporation (“**Kirkhill**”), TransDigm UK Holdings plc, a United Kingdom public limited company (“**TD UK**”), Extant Components Group Holdings, Inc., a Delaware corporation (“**Extant**”), Extant Components Group Intermediate, Inc., a Delaware corporation (“**Extant Intermediate**”), Symetrics Industries, LLC, a Florida limited liability company (“**Symetrics Industries**”), Symetrics Technology Group, LLC, a Florida limited liability company (“**Symetrics Technology**”), TEAC Aerospace Holdings, Inc., a Delaware corporation (“**TEAC Holdings**”), and TEAC Aerospace Technologies, Inc., a Delaware corporation (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 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, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool, Interiors In Flight, North Hills, North Hills Overseas, Kirkhill, TD UK, Extant, Extant Intermediate, Symetrics Industries, Symetrics Technology and TEAC Holdings, the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below.

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, the Seventh Supplemental Indenture thereto, dated as of March 31, 2017, the Eighth Supplemental Indenture thereto, dated as of May 9, 2017, the Ninth Supplemental Indenture thereto, dated as of March 30, 2018, the Tenth Supplemental Indenture thereto, dated as of May 8, 2018, and the Eleventh Supplemental Indenture thereto, dated as of May 22, 2018, 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 Subsidiary 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, the Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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 the Guaranteeing Subsidiary (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 Subsidiary 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 Subsidiary, 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.

SKANDIA, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

TRANSDIGM INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVIATION TECHNOLOGIES, INC.
AVIONICS SPECIALTIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRIDPORT HOLDINGS, INC.
BRIDPORT-AIR CARRIER, INC.
BRUCE AEROSPACE INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace US LLC, as its sole member
By: McKechnie Aerospace DE, Inc., as its sole member
EXTANT COMPONENTS GROUP HOLDINGS, INC.
EXTANT COMPONENTS GROUP INTERMEDIATE, INC.

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

HARTWELL CORPORATION
ILC HOLDINGS, INC.
JOHNSON LIVERPOOL LLC

By: Young & Franklin Inc., as its sole member

KIRKHILL INC.
MARATHONNORCO AEROSPACE, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE HOLDINGS, INC.
MCKECHNIE AEROSPACE US LLC

By: McKechnie Aerospace DE, Inc., as its sole member

NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
SYMETRICS INDUSTRIES, LLC

By: Symetrics Technology Group, LLC, as its sole member

By: Extant Components Group Intermediate, Inc., as its sole member

SYMETRICS TECHNOLOGY GROUP, LLC
By: Extant Components Group Intermediate, Inc., as its sole member
TACTAIR FLUID CONTROLS, INC.
TEAC AEROSPACE HOLDINGS, INC.
TEAC AEROSPACE TECHNOLOGIES, INC.
TEXAS ROTRONICS, INC.
TRANSICOIL LLC

By: Aviation Technologies, Inc., as its sole member

YOUNG & FRANKLIN INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

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
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/ James L. Skulina
Name: James L. Skulina

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

Title: Executive Vice President and Interim Chief Financial Officer

AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Chairman of the Board and Chief Executive Officer

BRIDPORT ERIE AVIATION, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Chairman of the Board and President

TRANSDIGM UK HOLDINGS PLC

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Director

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

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

By: /s/ Karen Yu
Name: Karen Yu
Title: Vice President

[Signature page to the Twelfth 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

ELEVENTH SUPPLEMENTAL INDENTURE

Dated as of July 31, 2018
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 **ELEVENTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of July 31, 2018, is entered into by and among Skandia, Inc., an Illinois corporation (the “**Guaranteeing Subsidiary**”), 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**”), AvtechTyee, 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 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**”), 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**”), Interiors In Flight LLC, a Delaware limited liability company (“**Interiors In Flight**”), North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (“**North Hills Overseas**”), Kirkhill, Inc., a Delaware corporation (“**Kirkhill**”), TransDigm UK Holdings plc, a United Kingdom public limited company (“**TD UK**”), Extant Components Group Holdings, Inc., a Delaware corporation (“**Extant**”), Extant Components Group Intermediate, Inc., a Delaware corporation (“**Extant Intermediate**”), Symetrics Industries, LLC, a Florida limited liability company (“**Symetrics Industries**”), Symetrics Technology Group, LLC, a Florida limited liability company (“**Symetrics Technology**”), TEAC Aerospace Holdings, Inc., a Delaware corporation (“**TEAC Holdings**”), and TEAC Aerospace Technologies, Inc., a Delaware corporation (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 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, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool, Interiors In Flight, North Hills, North Hills Overseas, Kirkhill, TD UK, Extant, Extant Intermediate, Symetrics Industries, Symetrics Technology and TEAC Holdings, the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below.

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, the Sixth Supplemental Indenture thereto, dated as of March 31, 2017, the Seventh Supplemental Indenture thereto, dated as of May 9, 2017, the Eighth Supplemental Indenture thereto, dated as of March 30, 2018, the Ninth Supplemental Indenture thereto, dated as of May 8, 2018, and the Tenth Supplemental Indenture thereto, dated as of May 22, 2018, 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 Subsidiary 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, the Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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 the Guaranteeing Subsidiary (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 Subsidiary 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 Subsidiary, 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.

SKANDIA, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

TRANSDIGM INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVIATION TECHNOLOGIES, INC.
AVIONICS SPECIALTIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRIDPORT HOLDINGS, INC.
BRIDPORT-AIR CARRIER, INC.
BRUCE AEROSPACE INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace US LLC, as its sole member
By: McKechnie Aerospace DE, Inc., as its sole member
EXTANT COMPONENTS GROUP HOLDINGS, INC.
EXTANT COMPONENTS GROUP INTERMEDIATE, INC.

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

HARTWELL CORPORATION
ILC HOLDINGS, INC.
JOHNSON LIVERPOOL LLC

By: Young & Franklin Inc., as its sole member

KIRKHILL INC.
MARATHONNORCO AEROSPACE, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE HOLDINGS, INC.
MCKECHNIE AEROSPACE US LLC

By: McKechnie Aerospace DE, Inc., as its sole member

NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
SYMETRICS INDUSTRIES, LLC

By: Symetrics Technology Group, LLC, as its sole member

By: Extant Components Group Intermediate, Inc., as its sole member

SYMETRICS TECHNOLOGY GROUP, LLC
By: Extant Components Group Intermediate, Inc., as its sole member
TACTAIR FLUID CONTROLS, INC.
TEAC AEROSPACE HOLDINGS, INC.
TEAC AEROSPACE TECHNOLOGIES, INC.
TEXAS ROTRONICS, INC.
TRANSICOIL LLC

By: Aviation Technologies, Inc., as its sole member

YOUNG & FRANKLIN INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

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
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/ James L. Skulina
Name: James L. Skulina

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

Title: Executive Vice President and Interim Chief Financial Officer

AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Chairman of the Board and Chief Executive Officer

BRIDPORT ERIE AVIATION, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Chairman of the Board and President

TRANSDIGM UK HOLDINGS PLC

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Director

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

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

By: /s/ Karen Yu
Name: Karen Yu
Title: Vice President

[Signature page to the Eleventh 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

EIGHTH SUPPLEMENTAL INDENTURE

Dated as of July 31, 2018

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 **EIGHTH SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of July 31, 2018, is entered into by and among Skandia, Inc., an Illinois corporation (the “**Guaranteeing Subsidiary**”), 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**”), AvtechTyee, 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 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**”), 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**”), Interiors In Flight LLC, a Delaware limited liability company (“**Interiors In Flight**”), North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (“**North Hills Overseas**”), Kirkhill, Inc., a Delaware corporation (“**Kirkhill**”), TransDigm UK Holdings plc, a United Kingdom public limited company (“**TD UK**”), Extant Components Group Holdings, Inc., a Delaware corporation (“**Extant**”), Extant Components Group Intermediate, Inc., a Delaware corporation (“**Extant Intermediate**”), Symetrics Industries, LLC, a Florida limited liability company (“**Symetrics Industries**”), Symetrics Technology Group, LLC, a Florida limited liability company (“**Symetrics Technology**”), TEAC Aerospace Holdings, Inc., a Delaware corporation (“**TEAC Holdings**”), and TEAC Aerospace Technologies, Inc., a Delaware corporation (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 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, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool, Interiors In Flight, North Hills, North Hills Overseas, Kirkhill, TD UK, Extant, Extant Intermediate, Symetrics Industries, Symetrics Technology and TEAC Holdings, the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below.

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, the Third Supplemental Indenture thereto, dated as of March 31, 2017, the Fourth Supplemental Indenture thereto, dated as of May 9, 2017, the Fifth Supplemental Indenture thereto, dated March 30, 2018, the Sixth Supplemental Indenture thereto, dated as of May 8, 2018, and the Seventh Supplemental Indenture thereto, dated as of May 22, 2018, 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 Subsidiary 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, the Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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 the Guaranteeing Subsidiary (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 Subsidiary 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 Subsidiary, 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.

SKANDIA, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

TRANSDIGM INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ James L. Skulina
Name: James L. Skulina
Title Executive Vice President and Interim Chief Financial Officer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVIATION TECHNOLOGIES, INC.
AVIONICS SPECIALTIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRIDPORT HOLDINGS, INC.
BRIDPORT-AIR CARRIER, INC.
BRUCE AEROSPACE INC.
DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace US LLC, as its sole member
By: McKechnie Aerospace DE, Inc., as its sole member
EXTANT COMPONENTS GROUP HOLDINGS, INC.
EXTANT COMPONENTS GROUP INTERMEDIATE, INC.

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

HARTWELL CORPORATION
ILC HOLDINGS, INC.
JOHNSON LIVERPOOL LLC

By: Young & Franklin Inc., as its sole member

KIRKHILL INC.
MARATHONNORCO AEROSPACE, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE HOLDINGS, INC.
MCKECHNIE AEROSPACE US LLC

By: McKechnie Aerospace DE, Inc., as its sole member

NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
SYMETRICS INDUSTRIES, LLC

By: Symetrics Technology Group, LLC, as its sole member

By: Extant Components Group Intermediate, Inc., as its sole member

SYMETRICS TECHNOLOGY GROUP, LLC
By: Extant Components Group Intermediate, Inc., as its sole member
TACTAIR FLUID CONTROLS, INC.
TEAC AEROSPACE HOLDINGS, INC.
TEAC AEROSPACE TECHNOLOGIES, INC.
TEXAS ROTRONICS, INC.
TRANSICOIL LLC

By: Aviation Technologies, Inc., as its sole member

YOUNG & FRANKLIN INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

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
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/ James L. Skulina
Name: James L. Skulina

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

Title: Executive Vice President and Interim Chief Financial Officer

AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Chairman of the Board and Chief Executive Officer

BRIDPORT ERIE AVIATION, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Chairman of the Board and President

TRANSDIGM UK HOLDINGS PLC

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Director

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

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

By: /s/ Karen Yu
Name: Karen Yu
Title: Vice President

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

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

SECOND SUPPLEMENTAL INDENTURE

Dated as of July 31, 2018

to

Indenture

Dated as of May 8, 2018

by and among

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

**6.875% Senior Subordinated Notes due 2026
of TransDigm UK Holdings plc**

This **SECOND SUPPLEMENTAL INDENTURE** (this “**Supplemental Indenture**”), dated as of July 31, 2018, is entered into by and among Skandia, Inc., an Illinois corporation (the “**Guaranteeing Subsidiary**”), TransDigm UK Holdings plc, a United Kingdom public limited company (the “**Issuer**”) 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**”), AvtechTye, 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 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**”), 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**”), Interiors In Flight LLC, a Delaware limited liability company (“**Interiors In Flight**”), North Hills Signal Processing Corp., a Delaware corporation (“**North Hills**”), North Hills Signal Processing Overseas Corp., a Delaware corporation (“**North Hills Overseas**”), Kirkhill, Inc., a Delaware corporation (“**Kirkhill**”), Extant Components Group Holdings, Inc., a Delaware corporation (“**Extant**”), Extant Components Group Intermediate, Inc., a Delaware corporation (“**Extant Intermediate**”), Symetrics Industries, LLC, a Florida limited liability company (“**Symetrics Industries**”), Symetrics Technology Group, LLC, a Florida limited liability company (“**Symetrics Technology**”), TEAC Aerospace Holdings, Inc., a Delaware corporation (“**TEAC Holdings**”), and TEAC Aerospace Technologies, Inc., a Delaware corporation (collectively with the Company, 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 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, DDC, Beta Corporation, Beta LLC, Young & Franklin, Tactair, Johnson Liverpool, Interiors In Flight, North Hills, North Hills Overseas, Kirkhill, Extant, Extant Intermediate, Symetrics Industries, Symetrics Technology and TEAC Holdings, the “**Existing Guarantors**”), and The Bank of New York Mellon Trust Company, N.A., as trustee (the “**Trustee**”) under the Indenture referred to below.

WITNESSETH:

WHEREAS, the Issuer and the Existing Guarantors have heretofore executed and delivered to the Trustee an indenture, dated as of May 8, 2018 (as supplemented by the First Supplemental Indenture thereto, dated as of May 22, 2018, the “**Indenture**”), providing for the issuance by the Issuer of 6.875% 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 Issuer, the Existing Guarantors and the Guaranteeing Subsidiary 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, the Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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.** The Guaranteeing Subsidiary 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 the Guaranteeing Subsidiary (or any successor entity) (other than the Issuer or the Existing Guarantors), as such, shall have any liability for any obligations of the Issuer, the Company, TD Group, the Guaranteeing Subsidiary 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 Subsidiary, the Existing Guarantors and the Issuer.

[Signature page follows.]

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

SKANDIA, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

TRANSDIGM UK HOLDINGS PLC

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Director

TRANSDIGM INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Executive Vice President and Interim Chief Financial Officer

TRANSDIGM GROUP INCORPORATED

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Executive Vice President and Interim Chief Financial Officer

ACME AEROSPACE, INC.
ADAMS RITE AEROSPACE, INC.
AEROCONTROLEX GROUP, INC.
AIRBORNE ACQUISITION, INC.
AIRBORNE GLOBAL, INC.
AIRBORNE HOLDINGS, INC.
AIRBORNE SYSTEMS NA INC.
AIRBORNE SYSTEMS NORTH AMERICA INC.
AIRBORNE SYSTEMS NORTH AMERICA OF CA INC.
AMSAFE GLOBAL HOLDINGS, INC.
AMSAFE, INC.
ARKWIN INDUSTRIES, INC.
AVIATION TECHNOLOGIES, INC.
AVIONICS SPECIALTIES, INC.
AVTECHTYEE, INC.
BETA TRANSFORMER TECHNOLOGY CORPORATION
BETA TRANSFORMER TECHNOLOGY LLC
By: Beta Transformer Technology Corporation, as its sole member
BRIDPORT HOLDINGS, INC.
BRIDPORT-AIR CARRIER, INC.
BRUCE AEROSPACE INC.

[Signature page to the Second Supplemental Indenture – TD UK Notes]

DATA DEVICE CORPORATION
DUKES AEROSPACE, INC.
ELECTROMECH TECHNOLOGIES LLC
By: McKechnie Aerospace US LLC, as its sole member
By: McKechnie Aerospace DE, Inc., as its sole member
EXTANT COMPONENTS GROUP HOLDINGS, INC.
EXTANT COMPONENTS GROUP INTERMEDIATE, INC.
HARTWELL CORPORATION
ILC HOLDINGS, INC.
JOHNSON LIVERPOOL LLC
By: Young & Franklin Inc., as its sole member
KIRKHILL INC.
MARATHONNORCO AEROSPACE, INC.
MCKECHNIE AEROSPACE DE, INC.
MCKECHNIE AEROSPACE HOLDINGS, INC.
MCKECHNIE AEROSPACE US LLC
By: McKechnie Aerospace DE, Inc., as its sole member
NORTH HILLS SIGNAL PROCESSING CORP.
NORTH HILLS SIGNAL PROCESSING OVERSEAS CORP.
PEXCO AEROSPACE, INC.
PNEUDRAULICS, INC.
SEMCO INSTRUMENTS, INC.
SHIELD RESTRAINT SYSTEMS, INC.
SKURKA AEROSPACE INC.
SYMETRICS INDUSTRIES, LLC
By: Symetrics Technology Group, LLC, as its sole member
By: Extant Components Group Intermediate, Inc., as its sole member
SYMETRICS TECHNOLOGY GROUP, LLC
By: Extant Components Group Intermediate, Inc., as its sole member
TACTAIR FLUID CONTROLS, INC.
TEAC AEROSPACE HOLDINGS, INC.
TEAC AEROSPACE TECHNOLOGIES, INC.
TEXAS ROTRONICS, INC.
TRANSICOIL LLC
By: Aviation Technologies, Inc., as its sole member
YOUNG & FRANKLIN INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Treasurer

[Signature page to the Second Supplemental Indenture – TD UK Notes]

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
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/ James L. Skulina
Name: James L. Skulina
Title: Executive Vice President and Interim Chief Financial Officer

AIRBORNE SYSTEMS NORTH AMERICA OF NJ INC.

By: /s/ James L. Skulina
Name: James L. Skulina
Title: Chairman of the Board and Chief Executive Officer

BRIDPORT ERIE AVIATION, INC.

By: /s/ Jonathan D. Crandall
Name: Jonathan D. Crandall
Title: Chairman of the Board and President

[Signature page to the Second Supplemental Indenture – TD UK Notes]

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

By: /s/ Karen Yu
Name: Karen Yu
Title: Vice President

[Signature page to the Second Supplemental Indenture – TD UK Notes]

THIRD AMENDED AND RESTATED EMPLOYMENT AGREEMENT

THIS AGREEMENT, dated as of November 6, 2018, is made by and between TransDigm Group Incorporated, a Delaware corporation (the “Company”), and Robert Henderson (the “Executive”).

RECITALS:

WHEREAS, the Executive is a party to an Employment Agreement with the Company dated as of January 25, 2018 (the “Prior Employment Agreement”); and

WHEREAS, the parties would like to continue the Executive’s employment on the terms and subject to the conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing and of the respective covenants and agreements set forth below, the parties hereto agree as follows:

1. Certain Definitions.

(a) “Annual Base Salary” shall mean \$750,000 in calendar year 2019 and such amounts as the Compensation Committee may thereafter determine (but such amounts may only be increased and not decreased).

(b) “Board” shall mean the Board of Directors of the Company.

(c) “Cause” shall mean either of the following: (i) the repeated failure by the Executive, after written notice from the Board, substantially to perform his material duties and responsibilities as an officer or employee or director of the Company or any of its subsidiaries (other than any such failure resulting from incapacity due to reasonably documented physical or mental illness), or (ii) any willful misconduct by the Executive that has the effect of materially injuring the business of the Company or any of its subsidiaries, including, without limitation, the disclosure of material secret or confidential information of the Company or any of its subsidiaries.

(d) “COBRA” shall mean the Consolidated Omnibus Budget Reconciliation Act of 1985, as may be amended from time to time.

(e) “Code” shall mean the Internal Revenue Code of 1986, as amended. Reference to a Section of the Code includes all rulings, regulations, notices, announcements, decisions, orders and other pronouncements that are issued by the United States Department of the Treasury, the Internal Revenue Service, or any court of competent jurisdiction that are lawful and pertinent to the interpretation, application or effectiveness of such Section.

(f) “Common Stock” shall mean the common stock of the Company, \$0.01 par value per share.

(g) “Company” shall have the meaning set forth in the preamble hereto.

(h) “Compensation Committee” shall mean the Compensation Committee of the Board whose members shall be appointed by the Board from time to time.

(i) “Date of Termination” shall mean (i) if the Executive’s employment is terminated by reason of his death, the date of his death, and (ii) if the Executive’s employment is terminated pursuant to Sections 5(a)(ii) - (vi), the date specified in the Notice of Termination.

(j) “Disability” shall mean the Executive’s absence from employment with the Company due to: (i) his inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months; or (ii) such medically determinable physical or mental impairment, which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, and for which the Executive is receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering the Company’s employees.

(k) “Effective Date” shall mean the date hereof.

(l) “Equity Compensation Agreements” shall mean any written agreements between the Company and the Executive pursuant to which the Executive holds or is granted options to purchase Common Stock, including, without limitation, agreements evidencing options granted under any option plan adopted or maintained by the Company for employees generally, and any management deferred compensation or similar plans of the Company.

(m) “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended.

(n) “Executive” shall have the meaning set forth in the preamble hereto.

(o) “Good Reason” shall mean the occurrence of any of the following: (i) a material diminution in the Executive’s title, duties or responsibilities, without his prior written consent, or (ii) a reduction of the Executive’s aggregate cash compensation (including bonus opportunities), benefits or perquisites, without his prior written consent, (iii) the Company requires the Executive, without his prior written consent, to be based at any office or location that requires a relocation greater than 30 miles from Pasadena, California, or (iv) any material breach of this Agreement by the Company.

(p) “Monthly COBRA Coverage Continuation Rate” shall have the meaning set forth in Section 6(a).

(q) “Notice of Termination” shall have the meaning set forth in Section 5(b).

(r) “Payment Period” shall have the meaning set forth in Section 6(b)(i).

(s) “Prior Employment Agreement” shall have the meaning set forth in the Recitals.

(t) “Specified Employee” shall have the meaning set forth in Code Section 409A

(u) “Term” shall have the meaning set forth in Section 2.

2. Employment. The Company shall employ the Executive, for the period set forth in this Section 2, in the position(s) set forth in Section 3 and upon the other terms and conditions herein provided. The term of employment under this Agreement (the “Term”) shall be for the period beginning on the Effective Date and ending on December 31, 2021 unless earlier terminated as provided in Section 5; provided, however, that this Agreement will terminated on December 31, 2019 if the Company’s proposed acquisition of Esterline Technologies Corporation has not closed by such date.

3. Position and Duties. During the Term, the Executive shall serve as Vice Chairman of each of the Company and its subsidiary, TransDigm, Inc. (“TransDigm”), with such responsibilities, duties and authority as may from time to time be assigned to the Executive by the Chief Executive Officer. During the Term, the Executive shall devote all of his working time and efforts to the business and affairs of the Company and TransDigm; provided, that it shall not be considered a violation of the foregoing for the Executive to (i) with the prior consent of the Board (which consent shall not unreasonably be withheld), serve on corporate, industry, civic or charitable boards or committees, and (ii) manage his personal investments, so long as none of such activities significantly interferes with the Executive’s duties hereunder.

4. Compensation and Related Matters.

(a) Annual Base Salary. During the Term, in lieu of a base salary, the Executive shall receive a grant of options each year equal to (i)(A) the applicable Annual Base Salary, minus (B) \$10,000 (which will be paid by the Company to the Executive in cash in accordance with the Company’s normal payroll practices), times (ii) 1.375. The options will be granted prior to December 31 of the previous year. The number of options to be granted pursuant to this Section 4(a) will be calculated in accordance with the Company’s Black Scholes Value described below, and will vest as set forth on Exhibit A. If the amounts in clause (B) above are insufficient for the Executive to pay for his elected health, vision and dental benefits, plus associated taxes, the Company and the Executive will adjust the foregoing amounts. The “Black Scholes Value” shall be an amount derived by using the Black Scholes method of valuing an option to purchase a share of Common Stock using the following assumptions: a current market price

equal to the average of the closing prices of the Common Stock for the 45 trading days ending on the trading day immediately preceding the date of grant, a strike price equal to the closing price of a share of Common Stock on the trading day immediately preceding the grant date, and a risk free rate, volatility and expected life consistent with the Company's practices. The terms of the stock options will provide that if the Executive incurs a termination of employment under any of the circumstances described in Section 5(a)(i), 5(a)(ii), 5(a)(iv) or 5(a)(v) or upon the Executive's Retirement, vesting will continue with respect to a percentage of such options after such termination of employment as set forth on Exhibit A.

(b) Bonus. The Executive shall be eligible to participate in the Company's annual cash bonus plan in accordance with terms and provisions which shall be consistent with the Company's executive bonus policy in effect as of the date hereof. The Executive's target bonus for each fiscal year during the Term will be 80% of his Annual Base Salary. Notwithstanding the foregoing, in lieu of the cash bonus calculated and paid in accordance with the Company's executive bonus policy, at the time of determination of the bonus amount each year, the Executive shall receive a grant of options equal to the foregoing amount times 1.375. The number of options to be granted pursuant to this Section 4(b) will be calculated in accordance with the Black Scholes Value described in Section 4(a) and will vest as set forth on Exhibit A. The terms of the stock options will provide that if the Executive incurs a termination of employment under any of the circumstances described in Section 5(a)(i), 5(a)(ii), 5(a)(iv) or 5(a)(v) or upon the Executive's Retirement, vesting will continue with respect to a percentage of such options after such termination of employment as set forth on Exhibit A.

(c) Election to Receive Cash Compensation. Notwithstanding Section 4(b), the Executive may give notice in writing (the "Cash Election"), not later than five days before the date of the annual Compensation Committee meeting at which bonus and salaries will be discussed, that the Executive wishes to (i) discontinue his receipt of equity compensation under Sections 4(a) and 4(b) for the remainder of the Term of this Agreement, commencing on January 1 of the upcoming calendar year (i.e., commencing with the following calendar year salary and current fiscal year bonus) or (ii) discontinue his receipt of equity compensation under Sections 4(a) and 4(b) for the remainder of the Term of this Agreement, commencing immediately (i.e., commencing with the previous fiscal year bonus). For example, if the Compensation Committee meeting is scheduled on December 1, 2019 to discuss fiscal 2019 bonuses and calendar 2020 salaries, the Executive may make an election not later than November 26, 2019 under clause (i) to receive his fiscal 2019 bonus in equity as set forth in Section 4(b) but discontinue all future equity awards for the remainder of the Term under Sections 4(a) and 4(b) or the Executive may make an election not later than November 26, 2019 under clause (ii) to discontinue all future equity awards, including his fiscal 2019 bonus, for the remainder of the Term. No election made pursuant to this Section 4(c) will impact any long-term incentive compensation payable under Section 4(e).

(d) Non-Qualified Deferred Compensation. During the Term, the Executive shall be eligible to participate in any non-qualified deferred compensation plan or program (if any) offered by the Company to its executives.

(e) Long Term Incentive Compensation. During the Term, the Executive shall be entitled to participate in the Option Plan or any successor plan thereto.

(f) Benefits. During the Term, the Executive shall be entitled to participate in the other employee benefit plans, programs and arrangements of the Company now (or, to the extent determined by the Board or Compensation Committee, hereafter) in effect which are applicable to the senior officers of the Company generally, subject to and on a basis consistent with the terms, conditions and overall administration thereof (including the right of the Company to amend, modify or terminate such plans).

(g) Expenses. Pursuant to the Company's customary policies in force at the time of payment, the Executive shall be reimbursed for all expenses properly incurred by the Executive on the Company's behalf in the performance of the Executive's duties hereunder.

(h) Vacation. The Executive shall be entitled to an amount of annual vacation days, and to compensation in respect of earned but unused vacation days in accordance with the Company's vacation policy as in effect as of the Effective Date. The Executive shall also be entitled to paid holidays in accordance with the Company's practices with respect to same as in effect as of the Effective Date.

5. Termination.

(a) The Executive's employment hereunder may be terminated by the Company or the Executive, as applicable, without any breach of this Agreement only under the following circumstances and in accordance with subsection (b):

(i) Death. The Executive's employment hereunder shall terminate upon his death.

(ii) Disability. If the Company determines in good faith that the Executive has incurred a Disability, the Company may give the Executive written notice of its intention to terminate the Executive's employment. In such event, the Executive's employment with the Company shall terminate effective on the 30th day after receipt of such notice by the Executive, provided that within such 30 day period the Executive shall not have returned to full-time performance of his duties. The Executive shall continue to receive his Annual Base Salary until the 90th day following the date of the Notice of Termination.

(iii) Termination for Cause. The Company may terminate the Executive's employment hereunder for Cause.

(iv) Resignation for Good Reason. The Executive may terminate his employment hereunder for Good Reason.

(v) Termination without Cause. The Company may terminate the Executive's employment hereunder without Cause.

(vi) Resignation without Good Reason. The Executive may resign his employment hereunder without Good Reason.

(b) Notice of Termination. Any termination of the Executive's employment by the Company or by the Executive under this Section 5 (other than termination pursuant to subsection (a)(i)) shall be communicated by a written notice from the Board or the Executive to the other indicating the specific termination provision in this Agreement relied upon, setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated, and specifying a Date of Termination which, except in the case of Termination by reason of Disability or Termination for Cause pursuant to Section 5(a)(ii) or 5(a)(iii), respectively, shall be at least 90 days following the date of such notice (a "Notice of Termination"). In the event of the Executive's Resignation for Good Reason pursuant to Section 5(a)(iv), the Company shall have the right, if the basis for such Good Reason is curable, to cure the same within 30 days following the receipt of the Notice of Termination and Good Reason shall not be deemed to exist if the Company cures the event giving rise to Good Reason within such 30-day period. The Executive shall continue to receive his Annual Base Salary, annual bonus and all other compensation and perquisites referenced in Section 4 through the Date of Termination.

6. Severance Payments.

(a) Termination for any Reason. In the event the Executive's employment with the Company is terminated for any reason, the Company shall pay the Executive (or his beneficiary in the event of his death) any unpaid Annual Base Salary that has accrued as of the Date of Termination, any unreimbursed expenses due to the Executive in accordance with the Company's expense reimbursement policy and an amount equal to compensation for accrued but unused sick days and vacation days. The Company shall permit the Executive to elect to continue health plan coverage in accordance with the requirements of applicable law (e.g., COBRA coverage), at the applicable monthly cost charged for such coverage (the "Monthly COBRA Coverage Continuation Rate"). The Company may require the Executive to complete and file any election forms that are generally required of other employees to obtain COBRA coverage; and the Executive's COBRA coverage may be terminable in accordance with applicable law. The Executive shall also be entitled to accrued, vested benefits under the Company's benefit plans and programs as provided therein. The Executive shall be entitled to the additional payments and benefits described below only as set forth herein.

(b) Termination without Cause, Resignation for Good Reason or Termination by Reason of Death or Disability. Subject to Sections 6(c) and (d) and the restrictions contained herein, in the event of the Executive's Termination without Cause (pursuant to Section 5(a)(v)), Resignation for Good Reason (pursuant to Section 5(a))

(iv)) or termination by reason of death or Disability (pursuant to Section 5(a)(i) or (ii), respectively), the Company shall pay to the Executive the amounts described in subsection (a). In addition, subject to Section 6(c) and (d) and the restrictions contained herein, the Company shall pay to the Executive (or his beneficiary in the event of his death) an amount equal to the "Severance Amount" described below. For purposes of this Agreement the Severance Amount is equal to the sum of:

(i) 1.0 times his Annual Base Salary, and

(ii) 1.0 times the greater of (A) the total of all bonuses paid (or payable) to the Executive in respect of the fiscal year ending immediately prior to the Date of Termination, excluding any bonuses that are extraordinary in nature (e.g., a transaction related bonus) or (B) the target bonuses for the fiscal year in which the Date of Termination falls, determined in accordance with the Company's bonus program or programs, if any, and

(iii) 18.0 times the difference of (A) the Monthly COBRA Continuation Coverage Rate determined as of the Date of Termination for the Executive's applicable health plan coverage as in effect on such date, less (B) the monthly cost to Executive that is being charged for such coverage as of the Date of Termination.

The Severance Amount as so determined shall be payable to the Executive (or his beneficiary) in substantially equal installments of the 12 month period following the Date of Termination (the "Payment Period") in accordance with the Company's regular payroll practices.

(c) Benefits Provided Upon Termination of Employment. If the Executive's termination or resignation does not constitute a "separation from service," as such term is defined under Code Section 409A, the Executive shall nevertheless be entitled to receive all of the payments and benefits that the Executive is entitled to receive under this Agreement on account of his termination of employment. However, the payments and benefits that the Executive is entitled to under this Agreement shall not be provided to the Executive until such time as the Executive has incurred a "separation from services" within the meaning of Code Section 409A.

(d) Payments on Account of Termination to a Specified Employee. Notwithstanding the foregoing provisions of Sections 6(a) or 6(b), in the event that the Executive is determined to be a Specified Employee at the time of his termination of employment under this Agreement (or, if later, his "separation from service" under Code Section 409A), to the extent that a payment, reimbursement or benefit under Section 6(b) is considered to provide for a "deferral of compensation" (as determined under Code Section 409A), then such payment, reimbursement or benefit shall not be paid or provided until six months after the Executive's separation from service, or his death, whichever occurs first. Any payments, reimbursements or benefits that are withheld under this provision for the first six months shall be payable in a lump sum on the 181st day after such termination of employment (or, if later, separation from service). The restrictions in this Section 6(d) shall be interpreted and applied solely to the minimum extent necessary to comply with the requirements of Code Section 409A(a)(2)(B). Accordingly, payments, benefits or reimbursements under Section 6(b) or any other part of this Agreement may nevertheless be provided to Executive with the six-month period following the date of Executive's termination of employment under this Agreement (or, if later, his "separation from service" under Code Section 409A), to the extent that it would nevertheless be permissible to do so under Code Section 409A because those payments, reimbursement or benefits are (i) described in Treasury Regulations Section 1.409A-1(b)(9)(iii) (i.e., payments within the limitations therein that are being made on account of an involuntary termination or termination for good reason, within the meaning of the Treasury Regulations), or (ii) described in Treasury Regulation Section 1.409A-1(b)(4) (i.e., payments which are treated as short-term deferrals within the meaning of the Treasury Regulations, or (iii) benefits described in Treasury Regulations Section 1.409A-1(v)(9)(v) (e.g., health care benefits).

7. Competition; Nonsolicitation.

(a) During the Term and, following any termination of Executive's employment, for a period equal to (i) the Payment Period, in the case of a termination of employment for which payments are made pursuant to Section 6(b) hereof, or (ii) twenty-four (24) months from the date of such termination in the event of a voluntary termination of employment by the Executive without Good Reason, or a termination by the Company for Cause, the Executive shall not, without the prior written consent of the Board, directly or indirectly engage in, or have any interest in, or manage or operate any person, firm, corporation, partnership or business (whether as director, officer, employee,

agent, representative, partner, security holder, consultant or otherwise) that engages in any business (other than a business that constitutes less than 5% of the relevant entity's net revenue and a proportionate share of its operating income) which competes with any business of the Company or any entity owned by it anywhere in the world; provided, however, that the Executive shall be permitted to acquire a stock interest in such a corporation provided such stock is publicly traded and the stock so acquired does not represent more than one percent of the outstanding shares of such corporation.

(b) During the Term and for a period of two years following any termination of the Executive's employment, the Executive shall not, directly or indirectly, on his own behalf or on behalf of any other person or entity, whether as an owner, employee, service provider or otherwise, solicit or induce any person who is or was employed by, or providing consulting services to, the Company or any of its subsidiaries during the twelve-month period prior to the date of such termination, to terminate their employment or consulting relationship with the Company or any such subsidiary.

(c) In the event the agreement in this Section 7 shall be determined by any court of competent jurisdiction to be unenforceable by reason of its extending for too great a period of time or over too great a geographical area or by reason of its being too extensive in any other respect, it shall be interpreted to extend only over the maximum period of time for which it may be enforceable, and/or over the maximum geographical area as to which it may be enforceable and/or to the maximum extent in all other respects as to which it may be enforceable, all as determined by such court in such action.

8. Nondisclosure of Proprietary Information.

(a) Except as required in the faithful performance of the Executive's duties hereunder or pursuant to subsection (c), the Executive shall, in perpetuity, maintain in confidence and shall not directly, indirectly or otherwise, use, disseminate, disclose or publish, or use for his benefit or the benefit of any person, firm, corporation or other entity any confidential or proprietary information or trade secrets of or relating to the Company, including, without limitation, information with respect to the Company's operations, processes, products, inventions, business practices, finances, principals, vendors, suppliers, customers, potential customers, marketing methods, costs, prices, contractual relationships, regulatory status, compensation paid to employees or other terms of employment, except for such information which is or becomes publicly available other than as a result of a breach by the Executive of this Section 8, or deliver to any person, firm, corporation or other entity any document, record, notebook, computer program or similar repository of or containing any such confidential or proprietary information or trade secrets. The parties hereby stipulate and agree that as between them the foregoing matters are important, material and confidential proprietary information and trade secrets and affect the successful conduct of the businesses of the Company (and any successor or assignee of the Company).

(b) Upon termination of the Executive's employment with the Company for any reason, the Executive shall promptly deliver to the Company all correspondence, drawings, manuals, letters, notes, notebooks, reports, programs, plans, proposals, financial documents, or any other documents concerning the Company's customers, business plans, marketing strategies, products or processes and/or which contain proprietary information or trade secrets.

(c) The Executive may respond to a lawful and valid subpoena or other legal process but shall give the Company the earliest possible notice thereof, shall, as much in advance of the return date as possible, make available to the Company and its counsel the documents and other information sought and shall assist such counsel in resisting or otherwise responding to such process.

9. Injunctive Relief. It is recognized and acknowledged by the Executive that a breach of the covenants contained in Sections 7 and 8 will cause irreparable damage to the Company and its goodwill, the exact amount of which will be difficult or impossible to ascertain, and that the remedies at law for any such breach will be inadequate. Accordingly, the Executive agrees that in the event of a breach of any of the covenants contained in Sections 7 and 8, in addition to any other remedy which may be available at law or in equity, the Company shall be entitled to specific performance and injunctive relief.

10. Survival. The expiration or termination of the Term shall not impair the rights or obligations of any party hereto which shall have accrued hereunder prior to such expiration.

11. Binding on Successors. This Agreement shall be binding upon and inure to the benefit of the Company, the Executive and their respective successors, assigns, personnel and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable.

12. Governing Law. This Agreement shall be governed, construed, interpreted and enforced in accordance with the substantive laws of the State of Ohio.

13. Validity. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

14. Notices. Any notice, request, claim, demand, document or other communication hereunder to any party shall be effective upon receipt (or refusal of receipt) and shall be in writing and delivered personally or sent by telex, telecopy, or certified or registered mail, postage prepaid, as follows:

(a) If to the Company, to:

TransDigm Group Incorporated
 The Tower at Erieview
 1301 E. 9th Street, Suite 3000
 Cleveland, Ohio 44114
 Attention: W. Nicholas Howley, Executive Chairman

(b) If to the Executive, to him at the address set forth below under his signature;

or at any other address as any party shall have specified by notice in writing to the other party in accordance with this Section 14.

15. Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same agreement.

16. Entire Agreement; Prior Employment Agreement. The terms of this Agreement, together with the Equity Compensation Agreements are intended by the parties to be the final expression of their agreement with respect to the employment of the Executive by the Company and may not be contradicted by evidence of any prior or contemporaneous agreement, including the Prior Employment Agreement. The parties further intend that this Agreement, and the aforementioned contemporaneous documents, shall constitute the complete and exclusive statement of its terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement. From and after the date hereof, this Agreement shall supersede the Prior Employment Agreement, except for any rights or obligations which survive pursuant to Section 10 thereof.

17. Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing, signed by the Executive and the Executive Chairman. By an instrument in writing similarly executed, the Executive or the Company may waive compliance by the other party or parties with any provision of this Agreement that such other party was or is obligated to comply with or perform; provided, however, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy or power hereunder shall preclude any other or further exercise of any other right, remedy or power provided herein or by law or in equity.

18. No Inconsistent Actions. The parties hereto shall not voluntarily undertake or fail to undertake any action or course of action inconsistent with the provisions or essential intent of this Agreement. Furthermore, it is the intent of the parties hereto to act in a fair and reasonable manner with respect to the interpretation and application of the provisions of this Agreement.

19. Arbitration. Any dispute or controversy arising under or in connection with this Agreement shall be settled exclusively by arbitration, conducted before a panel of three arbitrators in Cleveland, Ohio, in accordance with the rules of the American Arbitration Association then in effect. Judgment may be entered on the arbitrator's award in any court having jurisdiction; provided, however, that the Company shall be entitled to seek a restraining order or injunction in any court of competent jurisdiction to prevent any continuation of any violation of the provisions of Section 7 or 8 of this Agreement and the Executive hereby consents that such restraining order or injunction may be granted without the necessity of the Company's posting any bond; and provided further, that the Executive shall be entitled to seek specific performance of his right to be paid until the Date of Termination during the pendency of any dispute or controversy arising under or in connection with this Agreement. Each of the parties hereto shall bear its share of the fees and expenses of any arbitration hereunder.

20. Indemnification and Insurance; Legal Expenses. During the Term and so long as the Executive has not breached any of his obligations set forth in Sections 7 and 8, the Company shall indemnify the Executive to the fullest extent permitted by the laws of the State of Delaware, as in effect at the time of the subject act or omission, and shall advance to the Executive reasonable attorneys' fees and expenses as such fees and expenses are incurred (subject to an undertaking from the Executive to repay such advances if it shall be finally determined by a judicial decision which is not subject to further appeal that the Executive was not entitled to the reimbursement of such fees and expenses) and he shall be entitled to the protection of any insurance policies the Company shall elect to maintain generally for the benefit of its directors and officers ("Directors and Officers Insurance") against all costs, charges and expenses incurred or sustained by him in connection with any action, suit or proceeding to which he may be made a party by reason of his being or having been a director, officer or employee of the Company or any of its subsidiaries or his serving or having served any other enterprise as a director, officer or employee at the request of the Company (other than any dispute, claim or controversy arising under or relating to this Agreement). The Company covenants to maintain during the Term for the benefit of the Executive (in his capacity as an officer and director of the Company) Directors and Officers Insurance providing customary benefits to the Executive.

(SIGNATURE PAGE FOLLOWS)

IN WITNESS WHEREOF, the parties have executed this Agreement on the date and year first above written.

TRANSDIGM GROUP INCORPORATED

By:

Name: W. Nicholas Howley

Title: Executive Chairman

EXECUTIVE

Robert Henderson

EXHIBIT A

Options granted pursuant to Section 4(a) and 4(b) will vest as follows:

40% immediately, 40% at the end of the fiscal year of grant and 20% at the end of the first fiscal year following the fiscal year of grant (e.g., options granted in fiscal 2019 will vest 40% on date of grant, 40% on September 30, 2019 and 20% on September 30, 2020). The vesting provisions (other than the vesting schedule which is covered herein) for the options to granted under Sections 4(a) and 4(b), including the performance vesting criteria and calculation methodology, shall be the same as the vesting criteria used for options granted to other management of the Company in the fiscal year.

The terms of the stock options will provide that if the Executive incurs a termination of employment under any of the circumstances described in Section 5(a)(i), 5(a)(ii), 5(a)(iv) or 5(a)(v) or upon the Executive's Retirement (each a "covered departure"), vesting will continue with respect to a percentage of such options after such termination of employment as set forth in the following table:

Covered departure on or after the first fiscal year end after the date of grant but prior to the second fiscal year end after the date of grant	40%
Covered departure on or after the second fiscal year end after the date of grant but prior to the third fiscal year after the date of grant	80%
Covered departure on or after the third fiscal year end after the date of grant but prior to the fourth fiscal year end after the date of grant	100%

**FORM OF OPTION AGREEMENT (2018) – FIVE-YEAR GRANT AND EXTENSION GRANT
STOCK OPTION GRANT NOTICE AND STOCK OPTION AGREEMENT**

TransDigm Group Incorporated, a Delaware corporation (the “*Company*”), pursuant to its 2014 Stock Option Plan (the “*Plan*”), hereby grants to the holder listed below (“*Participant*”), an option to purchase the number of shares of the Company’s common stock, par value \$0.01 (“*Stock*”), set forth below (the “*Option*”). This Option is subject to all of the terms and conditions set forth herein and in the Stock Option Agreement attached hereto as Exhibit A (the “*Stock Option Agreement*”) and the Plan, which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Stock Option Agreement.

Participant: _____

Grant Date: _____

Exercise Price per Share: \$ _____

Total Number of Shares Subject to the Option: _____ Shares

Expiration Date: _____

By his or her signature, the Participant agrees to be bound by the terms and conditions of the Plan, the Stock Option Agreement and this Grant Notice. The Participant has reviewed the Stock Option Agreement, the Plan and this Grant Notice in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of this Grant Notice, the Stock Option Agreement and the Plan. The Participant agrees that as a condition to receiving the Option, the Participant shall comply with the Stock Retention Guidelines set forth on Exhibit C. The Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under the Plan or relating to the Option.

Type of Option: Incentive Stock Option x Non-Qualified Stock Option

Vesting Schedule: Subject to the terms of the Stock Option Agreement (including without limitation all exhibits thereto), the Option shall be eligible to become exercisable upon the achievement of performance objectives over the period set forth in Exhibit B hereto (provided that the Participant is an Eligible Person (as defined in the Plan) at all times during the period beginning on the Grant Date and ending on the applicable vesting date):

TRANSDIGM GROUP INCORPORATED

PARTICIPANT

By: _____
 Print Name: _____
 Title: _____
 Address: _____

By: _____
 Print Name: _____
 Address: _____

EXHIBIT A
TO STOCK OPTION GRANT NOTICE
STOCK OPTION AGREEMENT

Pursuant to the Stock Option Grant Notice (the “**Grant Notice**”) to which this Stock Option Agreement (this “**Agreement**”) is attached, TransDigm Group Incorporated, a Delaware corporation (the “**Company**”), has granted to the Participant an option (the “**Option**”)¹ under the Company’s 2014 Stock Option Plan (the “**Plan**”) to purchase the number of shares of Stock indicated in the Grant Notice.

ARTICLE I.

GENERAL

1.1 **Defined Terms.** Wherever the following terms are used in this Agreement they shall have the meanings specified below, unless the context clearly indicates otherwise. Capitalized terms not specifically defined herein shall have the meanings specified in the Plan and the Grant Notice.

(a) “**Administrator**” shall mean the Board or the Compensation Committee or other committee of the Board responsible for conducting the general administration of the Plan in accordance with Section 3 of the Plan; provided that if the Participant is an Independent Director, “Administrator” shall mean the Board.

(b) “**Consultant**” shall mean an individual who renders services to the Company as a consultant and has been so designated by the Committee.

(c) “**Credit Agreement**” shall mean that certain credit agreement dated as of June 4, 2014 among TransDigm, Inc., TransDigm Group Incorporated and the lenders party thereto, as in effect as of the Grant Date and without reference to any amendment to the Credit Agreement made following the Grant Date.

(d) “**Diluted Shares**” as of a given date shall mean the total diluted weighted-average of common shares of the Company outstanding as of such date.

(e) “**EBITDA**” for a given fiscal year of the Company shall mean Consolidated EBITDA (as defined in the Credit Agreement) of the Company for such fiscal year on a pro forma basis adjusted for acquisitions or divestitures.

(f) “**Independent Director**” shall mean a non-employee director of the Company.

(g) “**Net Debt**” shall mean, as of the last day of a given fiscal year of the Company, the excess of (a) Consolidated Total Indebtedness (as defined in the Credit Agreement) of the Company over (b) the amount of cash and cash equivalents set forth on the Company’s balance sheet.

(h) “**Termination of Consultancy**” shall mean the time when the engagement of the Participant as a Consultant to the Company or a Subsidiary is terminated for any reason, with or without cause, including, but not by way of limitation, by resignation, discharge, death or retirement, but excluding: (i) terminations where there is a simultaneous employment or continuing employment of the Participant by the Company or any Subsidiary, and (ii) terminations where there is a simultaneous re-establishment of a consulting relationship or continuing consulting relationship between the Participant and the Company or any Subsidiary. The Administrator, in its absolute discretion, shall determine the effect of all matters and questions relating to Termination of Consultancy, including, but not by way of limitation, the question of whether a particular leave of absence constitutes a Termination of Consultancy. Notwithstanding any other provision of the Plan, the Company or any Subsidiary has an absolute and unrestricted right to terminate a Consultant’s service at any time for any reason whatsoever, with or without cause, except to the extent expressly provided otherwise in writing.

¹ For the avoidance of doubt, the term “Option” as used herein only describes options granted pursuant to the Stock Option Grant Notice to which this Agreement is an Exhibit.

(i) “**Termination of Directorship**” shall mean the time when the Participant, if he or she is or becomes an Independent Director, ceases to be a Director for any reason, including, but not by way of limitation, a termination by resignation, failure to be elected, death or retirement. The Board, in its sole and absolute discretion, shall determine the effect of all matters and questions relating to Termination of Directorship with respect to Independent Directors.

(j) “**Termination of Employment**” shall mean the time when the employee-employer relationship between the Participant and the Company or any Subsidiary is terminated for any reason, with or without Cause, including, but not by way of limitation, a termination by resignation, discharge, death, disability or retirement; but excluding: (i) terminations where there is a simultaneous reemployment or continuing employment of the Participant by the Company or any Subsidiary, and (ii) terminations where there is a simultaneous establishment of a consulting relationship or continuing consulting relationship between the Participant and the Company or any Subsidiary. The Administrator, in its absolute discretion, shall determine the effect of all matters and questions relating to Termination of Employment, including, but not by way of limitation, the question of whether a particular leave of absence constitutes a Termination of Employment; provided, however, that, if this Option is an Incentive Stock Option, unless otherwise determined by the Administrator in its discretion, a leave of absence, change in status from an employee to an independent contractor or other change in the employee-employer relationship shall constitute a Termination of Employment if, and to the extent that, such leave of absence, change in status or other change interrupts employment for the purposes of Section 422(a)(2) of the Code and the then applicable regulations and revenue rulings under said Section.

(k) “**Termination of Services**” shall mean the time when (i) every relationship between the Participant and the Company has been terminated by a Termination of Consultancy, Termination of Directorship and/or Termination of Employment, as applicable, and (ii) the Participant is no longer an Eligible Person under the Plan.

1.2 Incorporation of Terms of Plan. The Option is subject to the terms and conditions of the Plan which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

ARTICLE II.

GRANT OF OPTION

2.1 Grant of Option. In consideration of the Participant’s future employment with or service to the Company or a Subsidiary and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice (the “**Grant Date**”), the Company irrevocably grants to the Participant the Option to purchase any part or all of an aggregate of the number of shares of Stock set forth in the Grant Notice, upon the terms and conditions set forth in the Plan and this Agreement. Unless designated as a Non-Qualified Stock Option in the Grant Notice, the Option shall be an Incentive Stock Option to the maximum extent permitted by law.

2.2 Exercise Price. The exercise price of the shares of Stock subject to the Option shall be as set forth in the Grant Notice, without commission or other charge; *provided, however*, that the price per share of the shares of Stock subject to the Option shall not be less than 100% of the Fair Market Value of a share of Stock on the Grant Date. Notwithstanding the foregoing, if this Option is designated as an Incentive Stock Option and the Participant owns (within the meaning of Section 424(d) of the Code) more than 10% of the total combined voting power of all classes of stock of the Company or any “subsidiary corporation” of the Company or any “parent corporation” of the Company (each within the meaning of Section 424 of the Code), the price per share of the shares of Stock subject to the Option shall not be less than 110% of the Fair Market Value of a share of Stock on the Grant Date.

2.3 Consideration to the Company. In consideration of the grant of the Option by the Company, the Participant agrees to render faithful and efficient services to the Company or any Subsidiary. Nothing in the Plan or this Agreement shall confer upon the Participant any right to continue in the employ or service of the Company or any Subsidiary or shall interfere with or restrict in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of the Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and the Participant.

ARTICLE III.

PERIOD OF EXERCISABILITY

3.1 Commencement of Exercisability.

(a) Subject to Sections 3.1(b), 3.1(c) and 3.3, the Option shall become vested and exercisable in such amounts and at such times as are set forth in the Grant Notice.

(b) No portion of the Option which has not become vested and exercisable at the date of the Participant's Termination of Services shall thereafter become vested and exercisable, except as may be otherwise provided by the Administrator or as set forth in a written agreement between the Company and the Participant. **[ALTERNATE PROVISION FOR EXECUTIVE OFFICERS:** No portion of the Option which has not become vested and exercisable at the date of the Participant's Termination of Services shall thereafter become vested and exercisable, except as follows or as may be otherwise provided by the Administrator or as set forth in a written agreement between the Company and the Participant:

If the Participant incurs a termination of employment under any of the circumstances described in Section 5(a)(i) (death) of that certain Employment Agreement between the Participant and the Company effective _____ (the "Employment Agreement"), Section 5(a)(ii) (Disability) of the Employment Agreement, Section 5(a)(iv) (Resignation for Good Reason of the Employment Agreement or Section 5(a)(v) (Termination without Cause) of the Employment Agreement or if the Participant retires from employment after at least 15 years of service after age 60 or after at least ten years of service after age 65, in each such case vesting will continue after termination of employment as provided below:

Termination Date	Percent of Remaining Options That May Continue to Vest
Prior to October 1, 2018	0%
On or after October 1, 2018 but prior to October 1, 2019	20%
On or after October 1, 2019 but prior to October 1, 2020	40%
On or after October 1, 2020 but prior to October 1, 2021	60%
On or after October 1, 2021 but prior to October 1, 2022	80%
On or after October 1, 2022	100%

The percentage of remaining Options permitted to vest will be spread ratably over the vesting schedule.]

(c) Notwithstanding Section 3.1(a) of this Agreement and Section 8 of the Plan (but subject to Section 3.1(b) of this Agreement), in the event of a Change in Control Options shall become fully vested and exercisable. Notwithstanding the foregoing, the Administrator may, in good faith and in such manner as it may deem equitable, in its sole discretion, adjust the foregoing Fair Market Value requirements in the event of a dividend or other distribution (whether in the form of cash, Stock, other securities or property), recapitalization, reclassification, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of Stock or other securities of the Company, issuance of warrants or other rights to purchase Stock or other securities of the Company, or any unusual or nonrecurring transactions or events affecting the Company or the financial statements of the Company if the adjustment is determined by the Administrator to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to the Option. For purposes of this Section 3.1, shall take into account the consideration received by the stockholders in connection with a Change in Control or in connection with any other sale of common stock or other equity interests in the Company or any Subsidiary, after taking into account all post-closing adjustments relating to a Change in Control, and assuming the exercise of all vested options and warrants outstanding as of the effective date of such Change in Control (after giving effect to any dilution of securities or instruments arising in connection with such Change in Control); *provided however*, that if the stockholders retain any portion of the common stock following such Change in Control or other sale, the Fair Market Value of such portion of the retained common stock immediately following such Change in Control or other sale shall be deemed “consideration received” for purposes of calculating the proceeds and *provided further* that the Fair Market Value of any non-cash consideration (including stock) received in connection with a Change in Control shall be determined as of the date of such Change in Control.

Notwithstanding Section 3.1(a) of this Agreement and Section 8 of the Plan (but subject to Section 3.1(b) of this Agreement) and notwithstanding Exhibit B to this Agreement, with respect to any portion of the Options that have not otherwise vested prior to the applicable date set forth below: (a) in the event that prior to September 30, 2021, the closing price of the Company's common stock on the New York Stock Exchange exceeded two times the Exercise Price of the Options less the amount of any dividends per share paid after the date hereof on any 60 trading days during any consecutive 12-month period commencing October 1, 2019, then all of the unvested Options will vest 50% on September 30, 2021 and 50% on September 30, 2022, and (b) in the event that the condition in clause (a) is not met but, prior to September 30, 2022, the closing price of the Company's common stock on the New York Stock Exchange exceeds two times the Exercise Price of the Options less the amount of dividends per share paid after the date hereof on any 60 trading days during any consecutive 12-month period commencing October 1, 2020, the remaining portion of the unvested Options will vest on September 30, 2022.

3.2 Duration of Exercisability. The installments provided for in the vesting schedule set forth in the Grant Notice are cumulative. Each such installment which becomes vested and exercisable pursuant to the vesting schedule set forth in the Grant Notice shall remain vested and exercisable until it becomes unexercisable under Section 3.3.

3.3 Expiration of Option. The Option may not be exercised to any extent by anyone after the first to occur of the following events:

(a) The expiration of ten years from the Grant Date; or

(b) If this Option is designated as an Incentive Stock Option and the Participant owned (within the meaning of Section 424(d) of the Code), at the time the Option was granted, more than 10% of the total combined voting power of all classes of stock of the Company or any “subsidiary corporation” of the Company or any “parent corporation” of the Company (each within the meaning of Section 424 of the Code), the expiration of five years from the Grant Date; or

(c) The opening of business on the day of the Participant's Termination of Employment by reason of a termination by the Company for Cause; **[ALTERNATIVE PROVISION FOR EXECUTIVE OFFICERS:** The opening of business on the day of the Participant's Termination of Services by reason of the Participant's Termination of Employment by reason of a termination by the Company for Cause (as defined in the

Participant's employment agreement, if applicable), unless the Committee, in its discretion, determines that a longer period is appropriate;] or

(d) The expiration of six months from the date of the Participant's Termination of Services, unless such termination occurs by reason of the Participant's death, Disability or retirement (pursuant to Section 3.3(e)) or is a termination by the Company for Cause (as defined in Participant's employment agreement), *provided, however*, that any portion of this Option that is an Incentive Stock Option shall cease to be an Incentive Stock Option on the expiration of three months from the Participant's Termination of Services (and shall thereafter be a Non-Qualified Stock Option), *provided, further*, that to the extent that the Participant is prohibited from selling shares of Stock pursuant to the Company's insider trading policy at all times during such six-month period, with the exception of an open trading window of less than seven days, the Option shall expire on the later of (i) the seventh day following the opening of the first open trading window thereafter or (ii) the first anniversary of the Participant's Termination of Services; **[ALTERNATIVE PROVISION FOR EXECUTIVE OFFICERS:** The expiration of six months from the date of the Participant's Termination of Services, unless such termination occurs by reason of (i) the Participant's death, (ii) the Participant's Disability, (iii) the Participant's retirement (pursuant to Section 3.3(e)), (iv) the Participant's termination for Cause (as defined in the Participant's employment, agreement, if applicable) or (v) if the Participant has an employment agreement that defines a termination for "cause" and/or "good Reason," a termination by the Company without Cause (as defined in the Participant's employment agreement) or a termination by the Participant for Good Reason (as defined in the Participant's employment agreement), *provided, however*, that any portion of this Option that is an Incentive Stock Option shall cease to be an Incentive Stock Option on the expiration of three months from the Participant's Termination of Services (and shall thereafter be a Non-Qualified Stock Option), *provided, further*, that to the extent that the Participant is prohibited from selling shares of Stock pursuant to the Company's insider trading policy at all times during such six-month period, with the exception of an open trading window of less than seven days, the Option shall expire on the seventh day following the opening of the first open trading window thereafter;] or

(e) The expiration of one year from the date of the Participant's Termination of Services by reason of (i) the Participant's death or Disability; or (ii) the retirement, after a minimum of ten years of service, of a Participant who is at least 55 years old, *provided, however*, that to the extent that the Participant is prohibited from selling shares of Stock pursuant to the Company's insider trading policy at all times during such one-year period, with the exception of an open trading window of less than seven days, the Option shall expire on the seventh day following the opening of the first open trading window thereafter. **[ALTERNATIVE PROVISION FOR EXECUTIVE OFFICERS:** The expiration of one year from the date of the Participant's Termination of Services by reason of the retirement, after a minimum of ten years of service, of a Participant who is at least 55 years old, *provided, however*, that to the extent that the Participant is prohibited from selling shares of Stock pursuant to the Company's insider trading policy at all times during such one-year period, with the exception of an open trading window of less than seven days, the Option shall expire on the seventh day following the opening of the first open trading window thereafter; or]

[ADDITIONAL PROVISION FOR EXECUTIVE OFFICERS: (f) The expiration date set forth in clause (a), (i) if the Participant has an employment agreement that defines a termination for "Cause" and/or "Good Reason," and upon a Participant's Termination of Services by the Company without Cause (as defined in Participant's employment agreement or a Termination of Services by the Participant for Good Reason (as defined in Participant's employment agreement) or (ii) upon the Participant's death or Disability or (iii) upon the Participant's retirement from employment after at least 15 years of service after age 60 or after at least ten years of service after age 65.

Notwithstanding the foregoing, if any Option vests after the Participant's Termination of Services for reasons set forth herein pursuant to Section 3.1 and the Participant has a limit of six months or one year following such Termination of Services to exercise the Option pursuant to paragraph (d) or (3), the Participant shall have six months after the Option vests to exercise such Option.]

3.4 Special Tax Consequences. The Participant acknowledges that, to the extent that the aggregate Fair Market Value (determined as of the time the Option is granted) of all shares of Stock with respect to which Incentive Stock

Options, including the Option, are exercisable for the first time by the Participant in any calendar year exceeds \$100,000, the Option and such other options shall be Non-Qualified Stock Options to the extent necessary to comply with the limitations imposed by Section 422(d) of the Code. The Participant further acknowledges that the rule set forth in the preceding sentence shall be applied by taking the Option and other "incentive stock options" into account in the order in which they were granted, as determined under Section 422(d) of the Code and the Treasury Regulations thereunder. The Participant acknowledges that an Incentive Stock Option exercised more than three months after the Participant's Termination of Employment, other than by reason of death or Disability, will be taxed as a Non-Qualified Stock Option.

ARTICLE IV.

EXERCISE OF OPTION

4.1 Person Eligible to Exercise. Except as provided in Sections 5.2(b), during the lifetime of the Participant, only the Participant may exercise the Option or any portion thereof. After the death of the Participant, any exercisable portion of the Option may, prior to the time when the Option becomes unexercisable under Section 3.3, be exercised by the Participant's personal representative or by any person empowered to do so under the deceased Participant's will or under the then applicable laws of descent and distribution.

4.2 Partial Exercise. Any exercisable portion of the Option or the entire Option, if then wholly exercisable, may be exercised in whole or in part at any time prior to the time when the Option or portion thereof becomes unexercisable under Section 3.3.

4.3 Manner of Exercise. The Option, or any exercisable portion thereof, may be exercised solely by delivery to the Secretary of the Company (or any third party administrator or other person or entity designated by the Company) of all of the following prior to the time when the Option or such portion thereof becomes unexercisable under Section 3.3:

- (a) An Exercise Notice in a form specified by the Administrator, stating that the Option or portion thereof is thereby exercised, such notice complying with all applicable rules established by the Administrator;
- (b) The receipt by the Company of full payment for the shares of Stock with respect to which the Option or portion thereof is exercised, including payment of any applicable withholding tax, which may be in one or more of the forms of consideration permitted under Section 4.4;
- (c) Any other written representations as may be required in the Administrator's reasonable discretion to evidence compliance with the Securities Act or any other applicable law, rule, or regulation; and
- (d) In the event the Option or portion thereof shall be exercised pursuant to Section 4.1 by any person or persons other than the Participant, appropriate proof of the right of such person or persons to exercise the Option.

Notwithstanding any of the foregoing, the Company shall have the right to specify all conditions of the manner of exercise, which conditions may vary by country and which may be subject to change from time to time.

4.4 Method of Payment. Payment of the exercise price, and any applicable withholding tax, shall be by any of the following, or a combination thereof, at the election of the Participant:

- (a) Cash;
- (b) Check;

(c) Broker-Assisted Cash-less Exercise. With the consent of the Administrator, delivery of a notice that the Participant has placed a market sell order with a broker with respect to shares of Stock then issuable upon exercise of the Option, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate exercise price; *provided*, that payment of such proceeds is then made to the Company upon settlement of such sale;

(d) Share Surrender. With the consent of the Administrator, surrender of other shares of Stock which (i) in the case of shares of Stock acquired from the Company, have been owned by the Participant for more than six (6) months on the date of surrender (or such other minimum length of time as the Administrator determines from time to time to be necessary to avoid adverse accounting consequences or violation of any applicable law, rule or regulation), and (ii) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the shares of Stock with respect to which the Option or portion thereof is being exercised; or

(e) Net Exercise. With the consent of the Administrator, surrendered shares of Stock issuable upon the exercise of the Option having a Fair Market Value on the date of exercise equal to the aggregate exercise price of the shares of Stock with respect to which the Option or portion thereof is being exercised.

4.5 Conditions to Issuance of Stock Certificates. The shares of Stock deliverable upon the exercise of the Option, or any portion thereof, may be either previously authorized but unissued shares of Stock or issued shares of Stock which have then been reacquired by the Company. Such shares of Stock shall be fully paid and nonassessable. The Company shall not be required to issue or deliver any shares of Stock purchased upon the exercise of the Option or portion thereof prior to fulfillment of all of the following conditions:

(a) The admission of such shares of Stock to listing on all stock exchanges on which such Stock is then listed;

(b) The completion of any registration or other qualification of such shares of Stock under any state or federal law or under rulings or regulations of the Securities and Exchange Commission or of any other governmental regulatory body, which the Administrator shall, in its absolute discretion, deem necessary or advisable;

(c) The obtaining of any approval or other clearance from any state or federal governmental agency which the Administrator shall, in its absolute discretion, determine to be necessary or advisable;

(d) The receipt by the Company of full payment for such shares of Stock, including payment of any applicable withholding tax, which may be in one or more of the forms of consideration permitted under Section 4.4; and

(e) The lapse of such reasonable period of time following the exercise of the Option as the Administrator may from time to time establish for reasons of administrative convenience.

4.6 Rights as Stockholder. The holder of the Option shall not be, nor have any of the rights or privileges of, a stockholder of the Company in respect of any shares of Stock purchasable upon the exercise of any part of the Option unless and until such shares of Stock shall have been issued by the Company to such holder (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment will be made for a dividend or other right for which the record date is prior to the date the shares of Stock are issued, except as provided in Section 8 of the Plan.

ARTICLE V.

OTHER PROVISIONS

5.1 Administration. The Administrator shall have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret, amend or revoke any such rules. All actions taken and all interpretations and determinations made by the Administrator in good faith shall be final and binding upon Participant, the Company and all other interested persons. No member of the Committee or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, this Agreement or the Option.

5.2 Option Transferability.

(a) Except as otherwise set forth in Section 5.2(b), (i) the Option may not be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution, unless and until the shares of Stock underlying the Option have been issued, and all restrictions applicable to such shares of Stock have

lapsed. Neither the Option nor any interest or right therein shall be liable for the debts, contracts or engagements of Participant or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect, except to the extent that such disposition is permitted by the preceding sentence; and (ii) during the lifetime of Participant, only Participant may exercise the Option or any portion thereof. After the death of Participant, any exercisable portion of the Option may, prior to the time when the Option becomes unexercisable under Section 3.3, be exercised by Participant's personal representative or by any person empowered to do so under the deceased Participant's will or under the then applicable laws of descent and distribution.

(b) Notwithstanding the foregoing, with respect to Participants who are corporate officers or operating presidents, the Administrator may permit any portion of the Option that is not an Incentive Stock Option to be transferred to, exercised by and paid to certain persons or entities related to such Participant, including but not limited to members of such Participant's family, charitable institutions or trusts or other entities whose beneficiaries or beneficial owners are members of such Participant's family and/or charitable institutions, or to such other persons or entities as may be expressly approved by the Administrator, pursuant to such conditions and procedures as the Administrator may establish. Any permitted transfer shall be subject to the condition that the Administrator receive evidence satisfactory to it that the transfer is being made for estate and/or tax planning purposes (or to a "blind trust" in connection with such Participant's termination of employment or service with the Company or a Subsidiary to assume a position with a governmental, charitable, educational or similar non-profit institution) and on a basis consistent with the Company's lawful issue of securities.

5.3 Adjustments. The Participant acknowledges that the Option is subject to modification and termination in certain events as provided in this Agreement and Section 8 of the Plan.

5.4 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the address given beneath the signature of the Company's authorized officer on the Grant Notice, and any notice to be given to Participant shall be addressed to Participant at the address given beneath Participant's signature on the Grant Notice. By a notice given pursuant to this Section 5.4, either party may hereafter designate a different address for notices to be given to that party. Any notice which is required to be given to Participant shall, if Participant is then deceased, be given to the person entitled to exercise his or her Option pursuant to Section 4.1 by written notice under this Section 5.4. Any notice shall be deemed duly given when sent via email or when sent by certified mail (return receipt requested) and deposited (with postage prepaid) in a post office or branch post office regularly maintained by the United States Postal Service.

5.5 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

5.6 Governing Law; Severability. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws.

5.7 Conformity to Securities Laws. The Participant acknowledges that the Plan and this Agreement are intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the Securities and Exchange Commission thereunder, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the Option is granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and this Agreement shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

5.8 Amendments, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Committee or the Board, *provided*, that, except as may otherwise be provided by the Plan, no amendment,

modification, suspension or termination of this Agreement shall adversely affect the Option in any material way without the prior written consent of the Participant.

5.9 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth in Section 5.2, this Agreement shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns.

5.10 Notification of Disposition. If this Option is designated as an Incentive Stock Option, Participant shall give prompt notice to the Company of any disposition or other transfer of any shares of Stock acquired under this Agreement if such disposition or transfer is made (a) within two years from the Grant Date with respect to such shares of Stock or (b) within one year after the transfer of such shares of Stock to him. Such notice shall specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by Participant in such disposition or other transfer.

5.11 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Option and this Agreement shall be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3 of the Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by applicable law, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

5.12 Not a Contract of Employment. Nothing in this Agreement or in the Plan shall confer upon the Participant any right to continue to serve as an employee or other service provider of the Company or any of its Subsidiaries.

5.13 Entire Agreement. The Plan, the Grant Notice and this Agreement (including all Exhibits thereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

5.14 Section 409A. Notwithstanding any other provision of the Plan, this Agreement or the Grant Notice, the Plan, this Agreement and the Grant Notice shall be interpreted in accordance with, and incorporate the terms and conditions required by, Section 409A of the U.S. Internal Revenue Code of 1986, as amended (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the date hereof, "**Section 409A**"). The Committee reserves the right (without the obligation to do so or to indemnify the Participant for the failure to do so) to adopt such amendments to the Plan, this Agreement or the Grant Notice or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Committee determines are necessary or appropriate to exempt the Option from Section 409A or to comply with the requirements of Section 409A and thereby avoid the penalty taxes under Section 409A.

**EXHIBIT B
FOR USE WITH FIVE YEAR AWARDS**

VESTING

Annual Operational Performance per Diluted Share¹

Fiscal Year (A)	Minimum Vesting (10% Growth)		Maximum Vesting (17.5% Growth)	
	% of Shares Vesting (B)	YE Operating Performance (per Diluted Share) (C)	% of Shares Vesting (D)	YE Operating Performance (per Diluted Share) (E)
2018	5 %	\$ 144.31	20 %	\$ 154.15
2019	5 %	\$ 158.74	20 %	\$ 181.13
2020	5 %	\$ 174.62	20 %	\$ 212.82
2021	5 %	\$ 192.08	20 %	\$ 250.07
2022	5 %	\$ 211.29	20 %	\$ 293.83

1. Annual Operational Performance Vesting. Effective as of the last day of each of the Company's fiscal years 2018-2022 there shall become vested the percentage of shares covered by the Option which is equal to the Annual Amount (as described below). The Options shall become vested and exercisable as of the date that the Administrator verifies the AOP (as defined below); provided, however, the vesting hereunder will be effective as to Participant as of the end of the fiscal year to which such Annual Amount relates (notwithstanding any termination of Participant's employment during the period between the end of such fiscal year and the verification of the AOP and, in such case, notwithstanding the provisions of Section 3.1(b)). For each such fiscal year, the Administrator shall verify the AOP, and shall notify the Company's Chief Executive Officer of its determination with respect thereto, within ten business days after the Administrator receives the Company's audited financial statements for that fiscal year.

X. For each year (the "performance year"), the Annual Amount is zero if the Annual Operational Performance per Diluted Share ("AOP") with respect to such year is less than the amount indicated for such year in column (C) and otherwise shall be equal to the amount indicated for such year in column (B) plus the product of (a) the excess of (1) the amount indicated for such year in column (D) over (2) the amount indicated for such year in column (B) and (b) the ratio of (1) the excess of (x) the AOP with respect to the year (but not more than the amount indicated in Column (E) for such year) over (y) the amount indicated for such year in column (C) to (2) the excess of (x) the amount indicated for such year in column (E) over (y) the amount indicated for such year in column (C).

Y. In calculating the AOP in Section X. above for any performance year there shall also be taken into account any AOP in any of the two prior performance years (starting in fiscal year 2018) which was in excess of the amount indicated in Column (E) for such prior year and has not previously been taken into account hereunder but only if doing so would increase the Annual Amount in such performance year. If the Participant is subsequently awarded options vesting in 2023 and 2024, any AOP during 2021 and 2022 in excess of the amount indicated in Column (E) (and not previously taken into account hereunder) may be used in one or more of the next two following years by treating such excess as AOP in the performance year under the option agreement granting said options.

Z. If the Annual Amount in any performance year is less than the amount indicated in column (D) for such year then an amount equal to the excess of (1) the amount indicated in column (D) for such year over (2) the actual Annual Amount for such year may vest in one or more of the next two following years by treating as AOP in the

performance year under Section X. above any excess of AOP in one of such following years over the amount indicated in column (E) for the applicable following year. The portion of any excess AOP amount which is so used may not be used more than once.

2. Adjustments of Operational Performance Objectives. The Operational Performance targets specified in this Exhibit B are based upon certain revenue and expense assumptions about the future business of the Company as of the date the Option is granted. Accordingly, in the event that, after such date, the Administrator determines, in its sole discretion, that any acquisition or disposition of any business by the Company or any dividend or other distribution (whether in the form of cash, Stock, other securities or other property), recapitalization, reclassification, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Stock or other securities of the Company, issuance of warrants or other rights to purchase Stock or other securities of the Company, any unusual or nonrecurring transactions or events affecting the Company, or the financial statements of the Company, or change in applicable laws, regulations, or accounting principles occurs such that an adjustment is determined by the Administrator to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to the Option, then the Administrator may, in good faith and in such manner as it may deem equitable, adjust the amounts set forth on this Exhibit B (and/or adjust the definitions of EBITDA and Net Debt) to reflect the projected effect of such transaction(s) or event(s) on Operational Performance. Further, in the event that the Company pays a special dividend, the AOP targets shall be adjusted as determined by the Administrator in accordance with past practice.

EXHIBIT B

FOR USE WITH TWO YEAR EXTENSION GRANTS

VESTING

Annual Operational Performance per Diluted Share¹

Fiscal Year (A)	Minimum Vesting (10% Growth)		Maximum Vesting (17.5% Growth)	
	% of Shares Vesting (B)	YE Operating Performance (per Diluted Share) (C)	% of Shares Vesting (D)	YE Operating Performance (per Diluted Share) (E)
2021	12.5 %	\$ 192.08	50 %	\$ 250.07
2022	12.5 %	\$ 211.29	50 %	\$ 293.83

1. Annual Operational Performance Vesting. Effective as of the last day of each of the Company's fiscal years 2021-2022 there shall become vested the percentage of shares covered by the Option which is equal to the Annual Amount (as described below). The Options shall become vested and exercisable as of the date that the Administrator verifies the AOP (as defined below); provided, however, the vesting hereunder will be effective as to Participant as of the end of the fiscal year to which such Annual Amount relates (notwithstanding any termination of Participant's employment during the period between the end of such fiscal year and the verification of the AOP and, in such case, notwithstanding the provisions of Section 3.1(b)). For each such fiscal year, the Administrator shall verify the AOP, and shall notify the Company's Chief Executive Officer of its determination with respect thereto, within ten business days after the Administrator receives the Company's audited financial statements for that fiscal year.

X. For each year (the "performance year"), the Annual Amount is zero if the Annual Operational Performance per Diluted Share ("AOP") with respect to such year is less than the amount indicated for such year in column (C) and otherwise shall be equal to the amount indicated for such year in column (B) plus the product of (a) the excess of (1) the amount indicated for such year in column (D) over (2) the amount indicated for such year in column (B) and (b) the ratio of (1) the excess of (x) the AOP with respect to the year (but not more than the amount indicated in Column (E) for such year) over (y) the amount indicated for such year in column (C) to (2) the excess of (x) the amount indicated for such year in column (E) over (y) the amount indicated for such year in column (C).

Y. In calculating the AOP in Section X. above for any performance year there shall also be taken into account any AOP in any of the two prior performance years (starting in fiscal year 2019) which was in excess of the amount indicated in Column (E) for such prior year and has not previously been taken into account hereunder but only if doing so would increase the Annual Amount in such performance year. If the Participant is subsequently awarded options vesting in 2023 and 2024, any AOP during 2021 and 2022 in excess of the amount indicated in Column (E) (and not previously taken into account hereunder) may be used in one or more of the next two following years by treating such excess as AOP in the performance year under the option agreement granting said options. Z. If the Annual Amount in 2021 is less than the amount indicated in column (D) for 2021 then an amount equal to the excess of (1) the amount indicated in column (D) for 2021 over (2) the actual Annual Amount for 2021 may vest in 2022 by treating as AOP in 2021 above any excess of AOP in 2022 over the amount indicated in column (E) for 2022. The portion of any excess AOP amount which is so used may not be used more than once.

2. Adjustments of Operational Performance Objectives. The Operational Performance targets specified in this Exhibit B are based upon certain revenue and expense assumptions about the future business of the Company as of the date the Option is granted. Accordingly, in the event that, after such date, the Administrator determines, in its

sole discretion, that any acquisition or disposition of any business by the Company or any dividend or other distribution (whether in the form of cash, Stock, other securities or other property), recapitalization, reclassification, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Stock or other securities of the Company, issuance of warrants or other rights to purchase Stock or other securities of the Company, any unusual or nonrecurring transactions or events affecting the Company, or the financial statements of the Company, or change in applicable laws, regulations, or accounting principles occurs such that an adjustment is determined by the Administrator to be appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan or with respect to the Option, then the Administrator may, in good faith and in such manner as it may deem equitable, adjust the amounts set forth on this Exhibit B (and/or adjust the definitions of EBITDA and Net Debt) to reflect the projected effect of such transaction(s) or event(s) on Operational Performance. Further, in the event that the Company pays a special dividend, the AOP targets shall be adjusted as determined by the Administrator in accordance with past practice.

EXHIBIT C**STOCK RETENTION GUIDELINES**

As a condition to receiving the Option grant, Participant acknowledges and agrees to hold a number of shares and/or options with such value and for such period of time as set forth below:

(a) At all times during Participant's continued employment by the Company, Participant shall hold an aggregate amount of Company equity with a value equal to or greater than \$_____ (the "Retention Limit")**[FOR EXECUTIVE OFFICERS ADD:, one-half of which must be held in stock]**. This Retention Limit will supersede any Retention Limit in any prior dated option agreement between the Company and Participant pursuant to the Plan.

For purposes of this Exhibit C, Company equity shall be equal to (i) the Fair Market Value of any Common Stock held by the Participant plus (ii) the value of vested options then held by Participant, whether granted pursuant to the Plan, the Company's 2006 Stock Incentive Plan, the Company's 2003 Stock Option Plan or otherwise, which will be equal to the Fair Market Value of the Common Stock underlying the options over the exercise price.

(b) If at any time after the date hereof the aggregate amount of Company equity held by Participant falls below the Retention Limit because of a decline in the Fair Market Value of the Common Stock, Participant will have three years to reach the Retention Limit before the Administrator may exercise any remedies under paragraph (d).

(c) Participant shall not be obligated to comply with the Retention Limit until five years from the date of grant; provided, however, that notwithstanding the foregoing, Participant may not make any sales of vested Options until the Retention Limit is reached, and thereafter, only to the extent that Participant would, at the time of the sale, be in compliance with the Retention Limit, except that Participants may make sales under 10b5-1 plans in existence on the date hereof so long as such sales would be in compliance with any preexisting Retention Limit.

(d) Participant's failure to hold that number of shares and/or vested options set forth in this Exhibit C shall result in Participant's forfeiture of all unvested Options unless otherwise determined by the Administrator, in its sole discretion.

SUBSIDIARIES OF TRANSDIGM GROUP INCORPORATED

TransDigm Inc. is a 100% owned subsidiary of TransDigm Group Incorporated

TransDigm Inc. owns directly or indirectly the following subsidiaries:

Name of Subsidiary	Jurisdiction of Incorporation or Organization
Abbott Electronics Ltd.	England
Acme Aerospace, Inc.	Delaware
Adams Rite Aerospace, Inc.	California
Adams Rite Aerospace GmbH	Germany
Advanced Inflatable Products Limited	England
AeroControlex Group, Inc.	Delaware
Aerosonic LLC	Delaware
Air-Sea Survival Equipment Trustee Limited	England
Airborne Acquisition, Inc.	Delaware
Airborne Global, Inc.	Delaware
Airborne Holdings, Inc.	Delaware
Airborne Systems Canada Ltd.	Ontario, Canada
Airborne Systems Group Limited	England
Airborne Systems Holdings Limited	England
Airborne Systems Limited	England
Airborne Systems NA, Inc.	Delaware
Airborne Systems North America Inc.	Delaware
Airborne Systems North America of CA Inc.	Delaware
Airborne Systems North America of NJ Inc.	New Jersey
Airborne Systems Pension Trust Limited	England
Airborne UK Acquisition Limited	England
Airborne UK Parent Limited	England
Aircraft Materials Limited	England
AmSafe, Inc.	Delaware
AmSafe Aviation (Chongqing), Ltd.	China
AmSafe Bridport Ltd.	England
AmSafe Bridport (Kunshan) Co., Ltd.	China
AmSafe Bridport (Private) Ltd.	Sri Lanka
AmSafe Global Holdings, Inc.	Delaware
AmSafe Global Services (Private) Limited	Sri Lanka
ARA Deutschland GmbH	Germany
ARA Holding GmbH	Germany
Arkwin Industries, Inc.	New York
Aviation Technologies, Inc.	Delaware
Avionic Instruments LLC	Delaware
Avionics Specialties, Inc.	Virginia
AvtechTyee, Inc.	Washington
Beta Transformer Mexico, S. de R.L. de C.V.	Mexico

Name of Subsidiary	Jurisdiction of Incorporation or Organization
Beta Transformer Technology Corporation	New York
Beta Transformer Technology LLC	Delaware
Breeze-Eastern LLC	Delaware
Bridport-Air Carrier, Inc.	Washington
Bridport Erie Aviation, Inc.	Delaware
Bridport Holdings, Inc.	Delaware
Bridport Ltd.	England
Bruce Aerospace, Inc.	Delaware
CDA InterCorp LLC	Florida
CEF Industries, LLC	Delaware
Champion Aerospace LLC	Delaware
Data Device Corporation	Delaware
DDC Electronics K.K.	Japan
DDC Electronics Ltd.	England
DDC Electronics Private Limited	India
DDC Elektronik, GmbH	Germany
DDC Electronique, S.A.R.L.	France
DDC Holdings (UK) Limited	England
DDC (United Kingdom) Ltd.	England
DDL195 Limited	England
Dukes Aerospace, Inc.	Delaware
Edlaw Limited	England
Electromech Technologies LLC	Delaware
Elektro-Metall Export GmbH	Germany
Elektro-Metall Paks KFT	Hungary
Extant Components Group Holdings, Inc.	Delaware
Extant Components Group Intermediate, Inc.	Delaware
GQ Parachutes Limited	England
HARCO LLC	Connecticut
Hartwell Corporation	California
ILC Holdings, Inc.	Delaware
Irvin Aerospace Limited	England
IrvinGQ France SAA	France
Irvin-GQ Limited	England
Johnson Liverpool LLC	Delaware
Kirkhill Inc.	Delaware
Kunshan Shield Restraint Systems, Ltd.	China
MarathonNorco Aerospace, Inc.	Delaware
McKechnie Aerospace DE, Inc.	Delaware
McKechnie Aerospace DE, LP	England
McKechnie Aerospace (Europe) Ltd.	England
McKechnie Aerospace Holdings, Inc.	Delaware
McKechnie Aerospace US LLC	Delaware
Mecanismos de Matamoros S.A. de C.V.	Mexico

Name of Subsidiary	Jurisdiction of Incorporation or Organization
Militair Aviation, Ltd.	England
Nordisk Asia Pacific Limited	Hong Kong
Nordisk Asia Pacific Pte Ltd	Singapore
Nordisk Aviation Products AS	Norway
Nordisk Aviation Products (Kunshan) Ltd.	China
North Hills Signal Processing Corp.	Delaware
North Hills Signal Processing Overseas Corp.	Delaware
Pascall Electronics Limited	England
Pemberton 123 Ltd.	England
Pexco Aerospace, Inc.	Delaware
PneuDraulics, Inc.	California
Rancho TransTechnology Corporation	California
Retainers, Inc.	New Jersey
Schneller Asia Pte. Ltd.	Singapore
Schneller LLC	Delaware
Schneller S.A.R.L.	France
Semco Instruments, Inc.	Delaware
Shield Restraint Systems, Inc.	Delaware
Shield Restraint Systems Ltd.	England
Signal Processing Matamoros S.A. de C.V.	Mexico
Skandia, Inc.	Illinois
Skurka Aerospace, Inc.	Delaware
SSP Industries	California
Symetrics Industries, LLC	Florida
Symetrics Technology Group, LLC	Florida
Tactair Fluid Controls, Inc.	New York
TDG Germany GmbH	Germany
TDG Netherlands BV	Netherlands
TEAC Aerospace Holdings, Inc.	Delaware
TEAC Aerospace Technologies, Inc.	Delaware
Technical Airborne Components Industries SPRL	Belgium
Telair US LLC	Delaware
Telair International AB	Sweden
Telair International GmbH	Germany
Telair International LLC	Delaware
Telair International Services PTE Ltd (JV 70.5%)	Singapore
Texas Rotronics, Inc.	Texas
TransDigm (Barbados) SRL	Barbados
TransDigm European Holdings Limited	England
TransDigm Ireland Ltd.	Ireland
TransDigm Receivables LLC	Delaware
TransDigm UK Holdings plc	UK

Name of Subsidiary**Jurisdiction of
Incorporation or Organization**

Transicoil (Malaysia) Sendirian Berhad

Malaysia

Transicoil LLC

Delaware

TTERUSA, Inc.

New Jersey

Whippany Actuation Systems, LLC

Delaware

XCEL Power Systems Ltd.

England

Young & Franklin Inc.

New York

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statements (Form S-8 No. 333-174122 and Form S-8 No. 333-152847) pertaining to the TransDigm Group Incorporated 2006 Stock Incentive Plan,
- (2) Registration Statement (Form S-8 No. 333-132808) pertaining to the TransDigm Group Incorporated 2006 Stock Incentive Plan and the TransDigm Group Fourth Amended and Restated 2003 Stock Option Plan, as amended, and
- (3) Registration Statement (Form S-8 No. 333-200204) pertaining to the TransDigm Group 2014 Stock Option Plan;

of our reports dated November 9, 2018, with respect to the consolidated financial statements and schedule of TransDigm Group Incorporated and the effectiveness of internal control over financial reporting of TransDigm Group Incorporated included in this Annual Report (Form 10-K) of TransDigm Group Incorporated for the year ended September 30, 2018.

/s/ Ernst & Young LLP

Cleveland, Ohio
November 9, 2018

CERTIFICATION

I, Kevin Stein, certify that:

1. I have reviewed this annual report on Form 10-K 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 fourth 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: November 9, 2018

/s/ Kevin Stein

Name: Kevin Stein

Title: President, Chief Executive Officer and Director

(Principal Executive Officer)

CERTIFICATION

I, Michael Lisman, certify that:

1. I have reviewed this annual report on Form 10-K 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 fourth 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: November 9, 2018

/s/ Michael Lisman

Name: Michael Lisman

Title: Chief Financial Officer

(Principal Financial 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 Annual Report on Form 10-K of TransDigm Group Incorporated (the "Company") for the fiscal year ended September 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kevin Stein, President, Chief Executive Officer and Director (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: November 9, 2018

/s/ Kevin Stein

Name: Kevin Stein

Title: President, Chief Executive Officer and Director
(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 Annual Report on Form 10-K of TransDigm Group Incorporated (the “Company”) for the fiscal year ended September 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Michael Lisman, Chief Financial Officer (Principal Financial 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: November 9, 2018

/s/ Michael Lisman

Name: Michael Lisman

Title: Chief Financial Officer

(Principal Financial Officer)