

ESTERLINE TECHNOLOGIES CORP
Form 10-K
November 21, 2017
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 29, 2017.

OR

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

For the transition period from _____ to _____ 3

Commission file number 1-6357

ESTERLINE TECHNOLOGIES CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

13-2595091
(I.R.S. Employer
Identification No.)

500 108th Avenue N.E., Bellevue, Washington 98004

(Address of principal executive offices)(Zip Code)

Registrant's telephone number, including area code (425) 453-9400

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

Title of each class	Name of each exchange on which registered
Common Stock (\$.20 par value)	New York Stock Exchange

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

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes 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, or a non-accelerated filer. See definition of "accelerated filer" and "large accelerated filer" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes
No

As of November 16, 2017, 29,984,434 shares of the Registrant's common stock were outstanding. The aggregate market value of shares of common stock held by non-affiliates as of March 31, 2017, was \$2,562,036,264 (based upon the closing sales price of \$86.05 per share).

Documents Incorporated by Reference

Part III incorporates information by reference to the registrant's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the close of the fiscal year ended September 29, 2017.

PART I

This Report includes a number of forward-looking statements that reflect the Company's current views with respect to future events and financial performance. Please refer to the section addressing forward-looking information on page 10 for further discussion. In this report, "we," "our," "us," "Company," and "Esterline" refer to Esterline Technologies Corporation and subsidiaries, unless otherwise noted or context otherwise indicates.

Explanatory Note

We changed our fiscal year to the twelve months ending the last Friday in September, effective beginning with the year ended on September 30, 2016. As a result, our 2015 fiscal year was shortened from twelve months to an eleven-month transition period ended on October 2, 2015.

Unless otherwise noted in this Part I:

•When financial results for fiscal 2016 are compared to the prior-year period, the results compare the twelve-month periods ended September 30, 2016, and October 2, 2015, respectively. The results for the twelve-month period ended October 2, 2015, are unaudited.

Item 1. Business

General Development of Business

Esterline, a Delaware corporation formed in 1967, is a leading specialized manufacturing company principally serving aerospace and defense customers. We design, manufacture and market highly engineered products and systems for application within the industries we serve.

Our current business and strategic plan focuses on continued development of our products principally for aerospace and defense markets in three key technology segments: Avionics & Controls, Sensors & Systems, and Advanced Materials. Our products are often mission critical, which have been designed into particular military and commercial platforms, and in certain cases can only be replaced by products of other manufacturers following a formal certification process. We are concentrating our efforts to expand our capabilities in these markets, anticipate the global needs of our customers and respond to such needs with comprehensive solutions. These efforts focus on continuous research and new product development, acquisitions, and strategic realignment of operations to expand our capabilities as a more comprehensive supplier to our customers across our entire product offering. Such expansion included the January 2015 acquisition of the defense, aerospace and training display business, Esterline Advanced Displays (EAD), of Belgium-based Barco N.V. (Barco). This acquisition is described in more detail in the "Liquidity and Capital Resources" section of Management's Discussion and Analysis of Financial Condition and Results of Continuing Operations contained in Item 7 of this report.

In December 2013 we announced the acceleration of our plans to consolidate certain facilities and create cost efficiencies through shared services in sales, general and administrative and support functions, which were completed in fiscal 2016. We incurred costs of \$8.7 million in fiscal 2016 and \$14.6 million in the recast twelve-month period of fiscal 2015 associated with these activities. The costs include severance, relocation of facilities, and losses from the write off of certain property, plant and equipment.

In March 2014 we entered into a Consent Agreement with the U.S. Department of State's Directorate of Defense Trade Controls Office of Defense Trade Controls Compliance (DTCC) to resolve alleged International Traffic in Arms Regulations (ITAR) civil violations. Among other things, the Consent Agreement required us to pay a \$20 million penalty, of which \$10 million was suspended and eligible for offset credit. In fiscal 2016 the DTCC approved costs we incurred to implement compliance measures to fully offset the \$10 million suspended payment. On September 5, 2017, the DTCC notified us that it is closing the Consent Agreement. The closing of the Consent Agreement was based on our certifications that all aspects of the Consent Agreement have been implemented and that our trade compliance program is adequate to identify, prevent, detect, correct, and report violations of the Arms Export Control Act (AECA) and ITAR, as well as the DTCC's assessment that we have fulfilled the terms of the Consent Agreement.

In fiscal 2014 our Board of Directors approved the plan to sell certain non-core business units including Eclipse Electronic Systems, Inc. (Eclipse), a manufacturer of embedded communication intercept receivers for signal intelligence applications; Wallop Defence Systems, Ltd. (Wallop), a manufacturer of flare countermeasure devices; a small distribution business; Pacific Aerospace and Electronics Inc. (PA&E), a manufacturer of hermetically sealed electrical connectors; and a small manufacturing business. As of September 30, 2017, we have sold these business units except for the land and building at Eclipse and Wallop, which are currently held for sale. These businesses are reported as discontinued operations.

We recorded a loss from discontinued operations of \$7.3 million, \$15.3 million, and \$40.3 million in fiscal 2017, 2016 and 2015, respectively.

Our products have a long history in the aerospace and defense industry and are found on most military and commercial aircraft, helicopters, and land-based systems. For example, our products are used on the majority of active and in-production U.S. military aircraft and on every Boeing commercial aircraft platform manufactured in the past 75 years. In addition, our products are supplied to Airbus, many of the major regional and business jet manufacturers, and the major aircraft engine manufacturers. We work closely with OEMs on new, highly engineered products with the objective of such products becoming designed into our customers' platforms; this integration often results in sole-source positions for OEM production and aftermarket business. We broadly categorize our commercial and military aerospace aftermarket sales as retrofit, repair services, and spare parts. Spare parts alone made up approximately 9% of total sales in fiscal 2017. Retrofit and repair services, which represent 3% of total sales in fiscal 2017, carry higher margins than OEM sales but lower margins than spare parts sales. In many cases, our aftermarket sales span the entire life of an aircraft.

We differentiate ourselves through our engineering and manufacturing capabilities and our reputation for safety, quality, on-time delivery, reliability, and innovation – all embodied in the Esterline Operating System, our way of approaching business that helps ensure all employees are focused on continuous improvement, teamwork, a safe work environment and compliance. Safety of our operations is a critical factor in our business, and accordingly, we incorporate applicable regulatory guidance in the design of our facilities and train our employees using a behavior-based approach that focuses on safety-designed work habits and on-going safety audits. Our industries are highly regulated, and compliance with applicable regulations, including export control and anti-bribery regulations, is an important focus in our business. We have a global code of business conduct and ethics, and we provide corporate-wide training and maintain local ethics advisors and export control specialists in our business units to support our compliance efforts. In fiscal 2017 we continued our significant efforts to build and strengthen our trade compliance program, driven in large part by the requirements of the Consent Agreement discussed above.

Our sales are diversified across three broad markets: defense, commercial aerospace and general industrial. For fiscal 2017, approximately 30% of our sales were from the defense market, 40% from the commercial aerospace market, and 30% from the general industrial market.

Financial Information About Industry Segments

A summary of net sales to unaffiliated customers, operating earnings and identifiable assets attributable to our business segments for fiscal 2017, 2016, and 2015 is reported in Note 18 to the Company's Consolidated Financial Statements under Item 8 of this report.

Description of Business

Avionics & Controls

Our Avionics & Controls business segment includes avionics systems, control and communication systems, and interface technologies capabilities. Avionics systems designs, develops and integrates cockpit avionics solutions as well as providing visualization solutions for commercial and defense applications. Control and communication systems designs and manufactures technology interface solutions for military and commercial aircraft and land- and sea-based military vehicles. Interface technologies manufactures and develops custom control panels and input systems for medical, industrial, military and gaming industries. We are a market leader in global positioning systems (GPS), head-up displays, enhanced vision systems, flight management systems, touchscreen display solutions and secure communication systems, all of which are used in a broad variety of applications. In addition, we develop, manufacture and market sophisticated, highly reliable component systems including lighted push-button and rotary switches, keyboards, lighted indicators, panels and displays.

Our products have been integrated into many existing aircraft designs, including every Boeing commercial aircraft platform currently in production. We are a Tier 1 supplier on the Boeing 787 and 777X programs to design and manufacture all of the cockpit overhead panels and embedded software for these systems. We provide high-quality and affordable visual display solutions to the air traffic control, naval, ground vehicles and unmanned systems and simulation and training markets. Our simulation and training solutions include a 360-degree rear projection display that offers high contrast and resolution and various types of large field-of-view collimated displays, and a deployable display with a roll-up, seamless spherical screen. We manufacture control sticks, grips and wheels, as well as specialized switching systems. In this area we primarily serve commercial and military aviation and airborne and ground-based military equipment manufacturing customers. For example, we are a leading manufacturer of pilot control grips for most types of military fighter jets and helicopters. Additionally, our software engineering center supports our customers' needs with applications such as flight management systems, air data computers and engine control systems.

Our proprietary products meet critical operational requirements and provide customers with significant technological advantages in areas such as night vision compatibility and active-matrix liquid-crystal displays (a technology enabling pilots to read display screens in a variety of light conditions as well as from extreme angles). Our products are incorporated in a wide variety of platforms ranging from military helicopters, fighters and transports, to commercial wide- and narrow-body, regional and business jets. In fiscal 2017 some of our largest customers for these products included Airbus, BAE Systems, The Boeing Company, Bombardier, FAA, Honeywell, L3 Technologies, Leonardo, Lockheed Martin, Pilatus, Rockwell Collins, Textron, Thales, and Triman.

In addition, we design and manufacture ruggedized military personal communication equipment, primarily headsets, handsets and field communications. We are the sole supplier of Active Noise Reduction (ANR) headsets to the British Army's tracked and wheeled vehicle fleets under the Bowman communication system program. We also supply ANR headsets to the U.S. Army's tracked and wheeled vehicle fleets. Additionally, we are the primary ANR headset supplier to the Canadian Army and have a long-standing relationship with allied armies around the world. In fiscal 2017 some of our largest customers for these products included BAE Systems, The Boeing Company, NATO Supply Procurement Agency, the U.S. Department of Defense (DoD), and Simex Defence.

We also manufacture a full line of keyboard, switch and input technologies for specialized medical equipment, high-tech gaming applications, and communication systems for military applications. These products include custom keyboards, keypads, and input devices that integrate cursor control devices, barcode scanners, displays, video, and voice activation and touch screens. We also produce instruments that are used for point-of-use and point-of-care diagnostics. We have developed a wide variety of technologies, including plastic and vinyl membranes that protect high-use switches and fully depressible buttons, and backlit elastomer switch coverings that are resistant to exposure from harsh chemicals. These technologies now serve as the foundation for a small but growing portion of our product line. In fiscal 2017, some of our largest customers for these products included Aristocrat Technologies, General Electric, Nuance, Philips, and Stat-Diagnostic.

Sensors & Systems

Our Sensors & Systems business segment includes power systems, connection technologies and advanced sensors capabilities. We develop and manufacture high-precision temperature, pressure and speed sensors principally for aerospace customers, electrical interconnect systems for severe environments for aerospace, defense, geophysics & marine, rail, and nuclear customers, as well as electrical power switching, control and data communication devices, and other related systems principally for aerospace and defense customers. We are the sole-source and aftersales supplier of temperature probes for use on all versions of the General Electric/Snecma CFM-56 jet engine. The CFM-56 jet engine has an installed base of over 30,000, and is standard equipment on the current generation Boeing 737 aircraft and approximately 60% of Airbus aircraft. We manufacture sensors for the environmental control system for Boeing 787 aircraft, and provide the primary power distribution assembly for the Airbus A400M military transport. We will provide the primary power distribution assembly for Embraer E-2 and Mitsubishi Regional Jet. Additionally, we have a Tier 1 position with Rolls-Royce for a large suite of sensors for the engines that power the A400M and A350. We design and manufacture interconnect solutions for harsh environments, connectors, backshells, conduits, planet probe interconnectors, and launcher umbilicals. We also design and manufacture composite connectors for the Boeing 787. The principal customers for our products in this business segment are jet engine manufacturers, airframe and industrial manufacturers. In fiscal 2017 some of our largest customers for these products included Airbus, BJK, The Boeing Company, Bombardier, Flame, General Electric, Rolls-Royce, Safran, TTI, Inc., and United Technologies Corporation (UTC) Aerospace Systems.

Advanced Materials

Our Advanced Materials business segment includes engineered materials and defense technologies capabilities. We develop and manufacture high-performance elastomer products used in a wide range of commercial aerospace, space and military applications, and highly engineered thermal components for commercial aerospace and industrial

applications. We also develop and manufacture combustible ordnance and countermeasures for military applications.

Specialized High-Performance Applications. We specialize in the development of proprietary formulations for silicone rubber and other elastomer products. Our elastomer products are engineered to address specific customer requirements where superior performance in high temperature, high pressure, caustic, abrasive and other difficult environments is critical. These products include clamping devices, thermal fire barrier insulation products, sealing systems, tubing and coverings designed in custom-molded shapes. Some of the products include proprietary elastomers that are specifically designed for use on or near a jet engine. We are a leading U.S. supplier of high-performance elastomer products to the aerospace industry, with our primary customers for these products being jet and rocket engine manufacturers, commercial and military airframe manufacturers, as well as commercial airlines. In fiscal 2017 some of the largest customers for these products included The Boeing Company, KLX Aerospace Solutions, Lockheed Martin, and Northrup Grumman.

We also develop and manufacture high temperature, lightweight metallic insulation systems for aerospace and marine applications. Our commercial aerospace programs include the Boeing 737, Airbus A320 and A380 series aircraft, and the International Aero Engines V2500 and Rolls-Royce BR710 engines. Our insulation material is used on diesel engine manifolds for earthmoving and agricultural applications. In addition, we specialize in the development of thermal protection for fire, nuclear, and petro-chemical industries. We design and manufacture high temperature components for industrial and marine markets. Our manufacturing processes consist of cutting, pressing, and welding stainless steel, inconel, and titanium fabrications. In fiscal 2017 some of the largest customers of these products included Airbus, Rolls-Royce, and Spirit AeroSystems.

Ordnance and Countermeasure Applications. We develop and manufacture combustible ordnance and warfare countermeasure devices for military customers. We manufacture molded fiber cartridge cases, mortar increments, igniter tubes and other combustible ordnance components primarily for the DoD. We are currently the sole supplier of combustible casings utilized by the U.S. Armed Forces. Sales are made either directly to the DoD or through prime contractors and General Dynamics. These products include the combustible case for the U.S. Army's new generation 155mm Modular Artillery Charge System, the 120mm combustible case used with the main armament system on the U.S. Army and Marine Corps' M1-A1/2 tanks, and the 60mm, 81mm and 120mm combustible mortar increments. We were recently selected as the exclusive provider of high- and low-velocity payloads for 40mm infrared training rounds. We are one of two suppliers to the U.S. Army of infrared decoy flares used by aircraft to help protect against radar and infrared guided missiles. We are currently the only supplier to the U.S. Army of countermeasures against radar-based threats. In fiscal 2017, in addition to the DoD, some of the largest customers of these products included Orbital ATK, General Dynamics, and Rikei.

A summary of product lines contributing sales of 10% or more of total sales for fiscal 2017, 2016, and 2015 is reported in Note 18 to the Consolidated Financial Statements under Item 8 of this report.

Marketing and Distribution

We believe that a key to continued success is our ability to meet customer requirements both domestically and internationally. We have and will continue to improve our world-wide sales and distribution channels in order to provide wider market coverage and to improve the effectiveness of our customers' supply chain. For example, our medical device assembly operation in Shanghai, China, serves our global medical customers, our service center in Singapore improves our capabilities in Asia for our temperature sensor customers, and our engineering and marketing offices in Bangalore, India, facilitate marketing opportunities in India. Other enhancements include combining sales and marketing forces of our operating units where appropriate, cross-training our sales representatives on multiple product lines, and cross-stocking our spares and components.

In the technical and highly engineered product segments in which we compete, relationship selling is particularly important in targeted marketing segments where customer and supplier design and engineering inputs need to be tightly integrated. Participation in industry trade shows is an effective method of meeting customers, introducing new products, and exchanging technical specifications. In addition to technical and industry conferences, our products are supported through direct internal international sales efforts, as well as through manufacturer representatives and selected distributors. As of September 29, 2017, 364 sales people, 253 representatives, and 315 distributors supported our operations.

Backlog

Backlog was \$1.3 billion at September 29, 2017, and September 30, 2016. We estimate that approximately \$440 million of backlog is scheduled to be shipped after fiscal 2018.

Backlog is subject to cancellation until delivered, and therefore, we cannot assure that our backlog will be converted into revenue in any particular period or at all. Except for the released portion, backlog also does not include

fixed-price, multi-year contracts.

Competition

Our products and services are affected by varying degrees of competition. We compete with other companies in most markets we serve. Many of these companies have far greater sales volumes and financial resources than we do. Some of our competitors are also our customers or suppliers on certain programs. The principal competitive factors in the commercial markets in which we participate are customer intimacy, product performance, on-time delivery performance, quality, service and price. Part of product performance requires expenditures in research and development that lead to product improvement. The market for many of our products may be affected by rapid and significant technological changes and new product introductions. Our principal competitors include Astronautics, BAE, Bose, Eaton, Elbit, EMS, Essex Industries, GE Aerospace, Honeywell, IAI, L-3, Otto Controls, RAFI, Rockwell Collins, SELEX, Telephonics, Thales, Ultra Electronics, Universal Avionics Systems Corporation, and Zodiac in our Avionics & Controls segment; Ametek, Amphenol, Eaton, Meggitt, STPI-Deutsch, TE Connectivity, Woodward and Zodiac in our Sensors & Systems segment; and Alloy Surfaces, AMTEC, Chemring, Doncasters, Hi-Temp, J&M, JPR Hutchinson, Kmass,

Meggitt (including Dunlop Standard Aerospace Group), Rheinmetall, Trelleborg, ULVA, UTC Aerospace Systems, UMPCO, and Woodward Products in our Advanced Materials segment.

Research and Development

Our product development and design programs utilize an extensive base of professional engineers, technicians and support personnel, supplemented by outside engineering and consulting firms when needed. In fiscal 2017 we expended \$103.0 million for research, development and engineering, compared with \$95.9 million in fiscal 2016 and \$100.4 million in the recast twelve-month period of fiscal 2015. Research and development expense has averaged 5.0% of sales per year for the three years ended September 29, 2017. We believe continued product development is key to our long-term growth, and consequently, we consistently invest in research and development. Examples include research and development projects relating to avionics displays, power systems, and controls. We actively participate in customer-funded research and development programs.

Foreign Operations

Our foreign operations consist of manufacturing facilities located in Belgium, Canada, China, the Dominican Republic, France, Germany, India, Mexico, Morocco, and the United Kingdom, and include sales and service operations located in Brazil, China, and Singapore. For further information regarding foreign operations, see Note 18 to the Consolidated Financial Statements under Item 8 of this report.

U.S. Government Contracts and Subcontracts

As a contractor and subcontractor to the U.S. government (primarily the DoD), we are subject to various laws and regulations that are more restrictive than those applicable to private sector contractors. Approximately 3% of our sales was made directly to the U.S. government in fiscal 2017. In addition, we estimate that our subcontracting activities to contractors for the U.S. government accounted for approximately 18% of sales during fiscal 2017. In total, we estimate that approximately 21% of our sales during the fiscal year were subject to U.S. government contracting regulations. Such contracts may be subject to termination, reduction or modification in the event of changes in government requirements, reductions in federal spending, and other factors.

Historically, our U.S. government contracts and subcontracts have been predominately fixed-price contracts. Generally, fixed-price contracts offer higher margins than cost-plus contracts in return for accepting the risk that increased or unexpected costs may reduce anticipated profits or cause us to sustain losses on the contracts. The accuracy and appropriateness of certain costs and expenses used to substantiate our direct and indirect costs for the U.S. government under both cost-plus and fixed-price contracts are subject to extensive regulation and audit by the Defense Contract Audit Agency, an arm of the DoD. The contracts and subcontracts to which we are a party are also subject to profit and cost controls and standard provisions for termination at the convenience of the U.S. government. Upon termination, other than for our default, we will normally be entitled to reimbursement for allowable costs and to an allowance for profit.

Trade Compliance Regulations

We are subject to U.S. export laws and regulations, including the ITAR, that generally restrict the export of defense products, technical data, and defense services. On March 5, 2014, the Company entered into a Consent Agreement with the DTCC to resolve alleged ITAR civil violations. The Consent Agreement settled the pending ITAR compliance matter with the DTCC previously reported by the Company that resulted from voluntary reports the Company filed with DTCC that disclosed possible technical and administrative violations of the ITAR. The Consent Agreement had a three-year term and provided for: (i) a payment of \$20 million, \$10 million of which was suspended and eligible for offset credit based on verified expenditures for past and future remedial compliance measures; (ii) the appointment of an external Special Compliance Official to oversee compliance with the Consent Agreement and the

ITAR; (iii) two external audits of the Company's ITAR compliance program; and (iv) continued implementation of ongoing compliance measures and additional remedial compliance measures related to automated systems and ITAR compliance policies, procedures, and training. The \$10 million portion of the settlement that was not subject to suspension was paid. Compliance expense associated with these measures was \$7.1 million in fiscal 2017 and \$10.4 million in the prior-year period. In fiscal 2016, the DTCC approved costs we incurred to implement compliance measures to fully offset the \$10 million suspended payment. The Consent Agreement was closed in the fourth quarter of fiscal 2017.

Our trade activities are also subject to customs and border control regulations, anti-bribery and anti-corruption regulations, and regulations that apply to supply chain activities, such as those relating to conflict minerals and the registration, evaluation, authorization and restriction of chemicals, as well as the defense federal acquisition regulations. Our failure to comply with applicable regulations could result in penalties, loss, or suspension of contracts, breach of contract claims, or other consequences, and the costs to maintain compliance with these regulations may be higher than we anticipate. Any of these consequences could adversely affect our operations or financial condition.

Intellectual Property

Although we hold a number of patents and licenses, we do not believe that our operations are dependent on our patents and licenses. We have trademark registrations on our important business names and/or product names filed in key jurisdictions where our businesses operate and sell products. In general, we rely on technical superiority, continual product improvement, exclusive product features, lean manufacturing and operational excellence, including superior lead-time, on-time delivery performance and quality, and customer relationships to maintain competitive advantage.

Seasonality

The timing of our revenues is impacted by the purchasing patterns of our customers, and as a result we do not generate revenues evenly throughout the year. Moreover, our first fiscal quarter, October through December, includes significant holiday vacation periods in both Europe and North America. This leads to decreased order and shipment activity; consequently, first quarter results are typically weaker than other quarters and not necessarily indicative of our performance in subsequent quarters. Beginning in fiscal 2016, we changed our fiscal year to the twelve months ended the last Friday in September to better align with the aerospace industry's business cycle.

Sources and Availability of Raw Materials and Components

The sources and availability of certain raw materials and components are not as critical as they would be for manufacturers of a single product line, due to our vertical integration and diversification. However, certain components, supplies and raw materials for our operations are purchased from single sources. In such instances, we strive to develop alternative sources and design modifications to minimize the effect of business interruptions.

Environmental Matters

We are subject to federal, state, local and foreign laws, regulations and ordinances that (i) govern activities or operations that may have adverse environmental effects, such as discharges to air and water, as well as handling and disposal practices for solid and hazardous waste, and (ii) impose liability for the costs of cleaning up, and certain damages resulting from, sites or past spills, disposals or other releases of hazardous substances.

At various times we have been identified as a potentially responsible party pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and analogous state environmental laws, for the cleanup of contamination resulting from past disposals of hazardous wastes at certain sites to which we, among others, sent wastes in the past. CERCLA requires potentially responsible persons to pay for cleanup of sites from which there has been a release or threatened release of hazardous substances. Courts have interpreted CERCLA to impose strict, joint and several liability on all persons liable for cleanup costs. As a practical matter, however, at sites where there are multiple potentially responsible persons, the costs of cleanup typically are allocated among the parties according to a volumetric or other standard.

We have accrued liabilities for environmental remediation costs expected to be incurred. Environmental exposures are provided for at the time they are known to exist or are considered probable and estimable.

Employees

We had 13,255 employees at September 29, 2017, of which 4,825 were based in the United States, 4,360 in Europe, 1,498 in Mexico, 981 in Canada, 791 in the Middle East and Asia, 635 in Morocco, and 165 in the Dominican Republic. Approximately 12% of the U.S.-based employees were represented by labor unions. Our non-U.S. operations are subject to union and national trade union agreements and to local regulations governing employment.

Financial Information About Foreign and Domestic Operations and Export Sales

See risk factor below entitled “Political and economic changes in foreign countries and markets, including foreign currency fluctuations, may have a material effect on our operating results” under Item 1A of this report and Note 18 to the Consolidated Financial Statements under Item 8 of this report.

Available Information About the Registrant

You can access financial and other information on our website, www.esterline.com. We make available through our website, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the Securities and Exchange Commission (SEC). The SEC also maintains a website at www.sec.gov, which

contains reports, proxy and information statements, and other information regarding public companies, including Esterline. Any reports filed with the SEC may also be obtained from the SEC's Reference Room at 100 F Street, NE, Washington, DC 20549. Our Corporate Governance Guidelines, charters for our required board committees, and our Code of Business Conduct and Ethics, which includes a code of ethics applicable to our accounting and financial employees, including our Chief Executive Officer and Chief Financial Officer, are available on our website, www.esterline.com on the Corporate Governance tab. Both of these documents are also available in print (at no charge) to any shareholder upon request. Our website and the information contained therein or connected thereto are not incorporated by reference into this Form 10-K.

Executive Officers of the Registrant

The names and ages of all executive officers of the Company and the positions and offices held by such persons as of November 21, 2017, are as follows:

Name	Position with the Company	Age
Curtis C. Reusser	Chairman, President and Chief Executive Officer	57
Robert D. George	Executive Vice President, Chief Financial Officer and Corporate Development	61
Paul P. Benson	Executive Vice President and Chief Human Resources Officer	53
Marcia J. Mason	Executive Vice President and General Counsel	65
Roger A. Ross	Executive Vice President and President, Sensors & Systems	49
Albert S. Yost	Executive Vice President and President, Advanced Materials and Avionics & Controls	52

Mr. Reusser has been Chairman, President and Chief Executive Officer since March 2014, and served as President and Chief Executive Officer from October 2013 to March 2014. Previously, he was President, Aircraft Systems of UTC Aerospace Systems for United Technologies Corporation, a provider of a broad range of high-technology products and services to the global aerospace and building systems industries, from July 2012 to October 2013. Mr. Reusser has a B.S. degree in Industrial and Mechanical Engineering from the University of Washington and a Certificate in Business Management from the University of San Diego.

Mr. George has been Executive Vice President, Chief Financial Officer and Corporate Development since June 2016. From October 2012 to June 2016, he was Vice President, Chief Financial Officer and Corporate Development. From July 2011 to October 2012, he was Vice President, Chief Financial Officer, Corporate Development and Secretary. Mr. George has an M.B.A. from the Fuqua School of Business at Duke University and a B.A. degree in Economics from Drew University.

Mr. Benson has been Executive Vice President and Chief Human Resources Officer since June 2016. From April 2015 to June 2016, he was Vice President and Chief Human Resources Officer. Prior to that time, he was Vice President, Human Resources from December 2014 to March 2015 and Senior Director, Human Resources from November 2014 to December 2014. Prior to that time, he was Senior Human Resources Director at Hewlett Packard Company, a technology products and services company, from 2006 to November 2014. Mr. Benson has an M.B.A. from Arizona State University and a B.A. degree in Business from St. Martin's College.

Ms. Mason has been Executive Vice President and General Counsel since June 2016. From September 2013 to June 2016, she was Vice President and General Counsel. Prior to that time she was General Counsel and Vice President, Administration from August 2012 to September 2013. Ms. Mason has a J.D. degree from Northwestern University School of Law and a B.A. degree in Political Science from Portland State University.

Mr. Ross has been Executive Vice President and President, Sensors & Systems since June 2016. From August 2015 to June 2016, he was President, Sensors & Systems Segment. Prior to that time, he was Senior Vice President, Actuation & Propeller Systems, at UTC Aerospace Systems for United Technologies Corporation, a provider of a broad range of high-technology products and services to the global aerospace and building systems industries, from January 2014 to July 2015. From January 2010 to December 2013, he was Vice President, Aerostructures Aftermarket at UTC Aerospace Systems for United Technologies Corporation. Mr. Ross has an M.B.A. from the University of Colorado, and M.S. and B.S. degrees in Mechanical Engineering from Colorado State University.

Mr. Yost has been Executive Vice President and President, Advanced Materials and Avionics & Controls since June 2016. From August 2015 to June 2016, he was President, Avionics & Controls and Advanced Materials Segments. Prior to that time, he was President, Advanced Materials Segment since March 2015 and President, Advanced Materials and Treasurer from March 2014 to February 2015. From July 2011 to February 2014, he was Group Vice President and Treasurer. Mr. Yost has an M.B.A. from Utah State University and a B.A. degree in Economics from Brigham Young University.

Forward-Looking Statements

This annual report on Form 10-K includes forward-looking statements. These statements may be identified by the use of forward-looking terminology such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “potential,” “predict,” “should” or “will” or the negative thereof or other variations thereon or comparable terminology. In particular, statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance contained in this report under the headings “Risks Relating to Our Business and Our Industry,” “Management’s Discussion and Analysis of Financial Condition and Results of Continuing Operations” and “Business” are forward-looking statements.

We have based these forward-looking statements on our current expectations, assumptions, estimates and projections. While we believe these expectations, assumptions, estimates and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which are beyond our control. These and other important factors, including those discussed in this report under the headings “Risks Relating to Our Business and Our Industry,” “Management’s Discussion and Analysis of Financial Condition and Results of Continuing Operations” and “Business” may cause our actual results, performance or achievements to differ materially from any future results, performance or achievements expressed or implied by these forward-looking statements. Some of the key factors that could cause actual results to differ from our expectations are:

- A significant reduction in defense spending;
- Loss of a significant customer or defense program;
- Our ability to comply with the complex laws and regulations that affect our business;
- Our inability to execute on our integration plans or otherwise integrate acquired operations or complete acquisitions;
- A significant downturn in the aerospace industry; and
- A decrease in demand for our products as a result of competition, technological innovation or otherwise.

Additionally, our actual sales and operating earnings may vary from quarter to quarter due to the timing of revenue recognition, sales mix and changes in manufacturing efficiency.

Given these risks and uncertainties, you should not place undue reliance on such forward-looking statements. The forward-looking statements included or incorporated by reference into this report are made only as of the date hereof. We do not undertake and specifically decline any obligation to update any such statements or to publicly announce the results of any revisions to any such statements to reflect future events or developments.

Item 1A. Risk Factors

Risks Relating to Our Business and Our Industry

The loss of a significant customer or defense program could have a material adverse effect on our operating results.

Some of our operations are dependent on a relatively small number of customers and aerospace and defense programs, which change from time to time. Significant customers in fiscal 2017 included The Boeing Company, Flame, General Electric, Hawker Beechcraft, Honeywell, Lockheed Martin, Northrop Grumman, Rolls-Royce, the DoD, and UTC Aerospace Systems. There can be no assurance that our current significant customers will continue to buy our products at current levels. The loss of a significant customer or the cancellation of orders related to a sole-source defense program could have a material adverse effect on our operating results if we were unable to replace the related sales.

Our revenues and operating results are subject to fluctuations that may cause our operating results to decline.

Our business is susceptible to seasonality, economic cycles and changes to business conditions, and as a result, our operating results have fluctuated widely in the past and are likely to continue to do so. Our revenue tends to fluctuate based on a number of market factors, including domestic and foreign economic conditions and developments affecting the specific industries and customers we serve. For example, it is possible that a global recession could occur and result in a more severe downturn in commercial aviation and defense. In addition, our operating and financial results are impacted by acquisitions, divestitures or adverse business developments. Our ability to effectively manage our portfolio of businesses and our business operations as well as respond to business changes will have an impact on our financial and operating results.

It is also possible that in the future our operating results in a particular quarter or quarters will not meet the expectations of securities analysts or investors, causing the market price of our common stock or senior notes to decline. We believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance and should not be relied upon to predict our future performance.

We may be unable to realize expected benefits from our business integration efforts and our profitability may be hurt or our business otherwise might be adversely affected.

In 2014 we began to consolidate certain facilities to create greater cost efficiencies through shared services in sales, general administration and support functions across our segments. In fiscal 2017 we focused on achieving direct and indirect overhead reductions and improving our operational efficiencies at recently consolidated facilities and creating shared services. These integration activities are intended to generate operating expense savings through direct and indirect overhead expense reductions as well as other savings and realizing these savings may be difficult. If we do not successfully manage our continuing integration activities, or any other similar activities that we may undertake in the future, expected efficiencies and benefits might be delayed or not realized, and our operations and business could be disrupted. Risks associated with these actions include inability to complete or delay in the planned transfer of business activities to other locations due to dependency on third-party agreements or certification of projects affected by the transfer, unanticipated costs in implementing the initiatives, delays in implementation of anticipated workforce reductions, adverse effects on employee morale, creation of customer or supplier uncertainty that may impact our business, and the failure to meet operational targets due to the loss of employees. If any of these risks are realized, our ability to achieve anticipated cost reductions may be impaired or our business may otherwise be harmed, which could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

We are subject to numerous regulatory requirements for the export and sale of our products and services worldwide that could adversely affect our business.

We are also subject to a variety of U.S. and international export control laws and regulations such as the U.S. Export Administration Regulations (EAR) and ITAR, which generally restrict the export of defense products, technology, technical data and defense services. Our trade activities are also subject to international sanctions that significantly restrict or prohibit the sale of certain goods and services in specified countries, including Russia, in which our customers operate or support programs. Our failure to comply with any of these regulations could result in penalties, loss, or suspension of contracts or other consequences. In addition, we may need to hold shipments or expend significant resources to re-work, re-design or re-certify our products, to achieve compliance with applicable export control regulations. If we are required to take any of these measures, we may lose revenue opportunities, expend significant resources and/or be exposed to late-delivery penalties or other claims from our customers. Any of these could adversely affect our operations and financial condition. As further described in this report under "Item 1," in September 2017 the Consent Agreement with the DTCC arising from our earlier handling of ITAR-controlled transactions, including the substance of prior voluntary disclosures and other aspects of ITAR compliance errors was closed.

We are subject to the Foreign Corrupt Practices Act, or FCPA, the U.K. Bribery Act and other anti-bribery and anti-corruption laws that generally prohibit companies and their intermediaries from bribing foreign officials and non-governmental commercial parties for the purpose of obtaining or keeping business or otherwise obtaining favorable treatment. In particular, we may be held liable for actions taken by our strategic or local partners even though our partners are not subject to these laws. Any determination that we have violated the FCPA, the U.K. Bribery Act or similar laws could result in sanctions that could have a material adverse effect on our business, financial condition and results of operation.

Our financial performance may be adversely affected by information system business disruptions or failures.

Our business may be impacted by information technology attacks or system failures. Cybersecurity attacks, in particular, are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data, and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information and corruption of data. We have experienced cybersecurity attacks in the past and may experience them in the future, potentially with more frequency. In addition, we have numerous, unique communications, data management and operations support systems across our enterprise that require expertise

and significant resources to maintain and upgrade. We have taken measures to mitigate potential risks to our technology information and systems and are implementing plans to modernize and upgrade our systems, in part to comply with U.S. government contracting requirements and with the European Union (EU) General Data Protection Regulation that will become effective in May 2018. However, our plans to upgrade our systems will take time to deploy across our enterprise and the timing, nature and scope of system disruptions and failures are unpredictable. As a result, we may experience production downtimes, operational delays or other detrimental impacts on our operations or ability to provide products and services to our customers. Our ability to collect and report financial information from our businesses may be impacted. The compromising of confidential or otherwise protected information, destruction or corruption of data, security breaches, or other manipulation or improper use of our systems or networks could occur. We may also experience financial losses from remedial actions, including significant expenditures to restore or replace systems, loss of business or potential liability under contracts or pursuant to regulations that require us to maintain confidential and other data securely, and/or damage to our reputation. Any of these consequences could have a material adverse effect on our competitive position, results of operations, cash flows or financial condition.

Implementing our acquisition strategy involves risks, and our failure to successfully implement this strategy could have a material adverse effect on our business.

One of our key strategies is to grow our business by selectively pursuing acquisitions. Since 1996 we have completed over 30 acquisitions, and we are continuing to actively pursue additional acquisition opportunities, some of which may be material to our business and financial performance. Although we have been successful with this strategy in the past, we may not be able to grow our business in the future through acquisitions for a number of reasons, including:

- Encountering difficulties identifying and executing acquisitions;
- Increased competition for targets, which may increase acquisition costs;
- Consolidation in our industry reducing the number of acquisition targets;
- Competition laws and regulations preventing us from making certain acquisitions; and
- Acquisition financing not being available on acceptable terms or at all.

In addition, there are potential risks associated with growing our business through acquisitions, including the failure to successfully integrate and realize the expected benefits of an acquisition. For example, with any past or future acquisition, there is the possibility that:

- The business culture of the acquired business may not match well with our culture;
- Technological and product synergies, economies of scale and cost reductions may not occur as expected;
- Management may be distracted from overseeing existing operations by the need to integrate acquired businesses;
- We may acquire or assume unexpected liabilities;
- Unforeseen difficulties may arise in integrating operations and systems;
- We may fail to retain and assimilate employees of the acquired business;
- We may experience problems in retaining customers and integrating customer bases; and
- Problems may arise in entering new markets in which we may have little or no experience and managing the resulting portfolio changes.

Failure to continue implementing our acquisition strategy, including successfully integrating acquired businesses, could have a material adverse effect on our business, financial condition and results of operations.

Our future financial results could be adversely impacted by asset impairment charges.

We are required to test both acquired goodwill and other indefinite-lived intangible assets for impairment on an annual basis based upon a fair value approach, rather than amortizing them over time. We have chosen to perform our annual impairment reviews of goodwill and other indefinite-lived intangible assets during the fourth quarter of each fiscal year. We also are required to test goodwill for impairment between annual tests if events occur or circumstances change that would more likely than not reduce our enterprise fair value below its book value.

As we have grown through acquisitions, we have accumulated \$1.1 billion of goodwill, \$41.4 million of indefinite-lived intangible assets, and \$317.8 million of definite-lived intangible assets, out of total assets of \$3.1 billion at September 29, 2017. As a result, the amount of any annual or interim impairment could be significant and could have a material adverse effect on our reported financial results for the period in which the charge is taken.

We performed our annual impairment review for fiscal 2017 as of July 1, 2017, and our review indicated that no impairment of goodwill or other indefinite-lived assets exists at any of our reporting units.

Reductions in defense spending could adversely affect our business.

Approximately 30% of our business is dependent upon defense spending. The defense industry is dependent upon the level of equipment expenditures by the armed forces of countries around the world, and especially those of the United States, which represents a significant portion of worldwide defense expenditures. Reductions in defense spending in

2018 and beyond are possible, which could have significant future consequences to our business, including termination or disruption of programs and personnel reductions that could impact our manufacturing operations and engineering capabilities.

We may have exposure to greater than anticipated tax liabilities and a higher effective tax rate.

We are subject to income taxes in the United States and foreign jurisdictions. Our effective tax rate is influenced by a number of factors, including, but not limited to, the mix of earnings in countries with differing statutory tax rates, modification on tax policy, interpretation of existing tax laws, and our ability to sustain our reporting positions on examination. Any adverse changes in those factors could have a negative effect on our effective tax rate and financial results.

In addition, the U.S. and foreign governments have introduced proposals for changes in tax legislation, or have adopted tax laws in response to the guidelines provided by the Organization for Economic Co-Operation and Development to address base erosion and profit shifting. These changes will increase tax uncertainty and may adversely impact our effective tax rate.

Our operations depend on our production facilities throughout the world. These production facilities are subject to physical and other risks that could disrupt production.

Our production facilities could be damaged or disrupted by a natural disaster, war, political unrest, terrorist activity or a pandemic. In addition, our facilities are subject to local labor conditions that may lead to labor strikes, work stoppages or high levels of employee turnover that could also disrupt our business operations. Several of our production facilities are located in California, and thus are in areas with above average seismic activity and may also be at risk of damage in wildfires. Although we have obtained property damage and business interruption insurance for our production facilities, a major catastrophe such as an earthquake or other natural disaster at any of our sites, or significant labor strikes, work stoppage, political unrest, war or terrorist activities in any of the areas where we conduct operations, could result in a prolonged interruption of our business. Any disruption resulting from these events could cause significant delays in shipments of products and the loss of sales and customers. We cannot assure you that we will have insurance to adequately compensate us for any of these events.

We may not be able to compete effectively.

Our products and services are affected by varying degrees of competition. We compete with other companies and divisions and units of larger companies in most markets we serve, many of which have greater sales volumes or financial, technological or marketing resources than we do. Our principal competitors include: Astronautics, BAE, Bose, Eaton, ECE, Elbit, EMS, GE Aerospace, Honeywell, IAI, L-3, Otto Controls, RAFI, Rockwell Collins, SELEX, Telephonics, Thales, Ultra Electronics, and Universal Avionics Systems Corporation in our Avionics & Controls segment; Ametek, Amphenol, Eaton, ECE, MPC Products, Meggitt, STPI-Deutsch, and TE Connectivity in our Sensors & Systems segment; and Chemring, Doncasters, Hi-Temp, J&M, JPR Hutchinson, Kmass, Meggitt (including Dunlop Standard Aerospace Group), Rheinmetall, Trelleborg, ULVA, UMPCO, and UTC Aerospace Systems in our Advanced Materials segment. The principal competitive factors in the commercial markets in which we participate are product performance, on-time delivery performance, quality, service and price. Maintaining product performance requires expenditures in research and development that lead to product improvement and new product introduction. Companies with more substantial financial resources may have a better ability to make such expenditures. The business model for some of our businesses is based upon access to the aftermarket and its premium pricing over OEM pricing. The strategic goal of our major OEM customers is to increase their access to the aftermarket from their supplier base, which would correspondingly decrease our sales to aftermarket customers. We cannot assure that we will be able to continue to successfully compete in our markets, which could adversely affect our business, financial condition, and results of operations.

The amount of debt we have outstanding, as well as any debt we may incur in the future, could have an adverse effect on our operational and financial flexibility.

As of September 29, 2017, we had approximately \$759.4 million of long-term debt outstanding, including a credit facility and \$17.4 million in current maturities of long-term debt. The credit facility is secured by substantially all of the Company's assets.

Our level of debt could have significant consequences to our business, including the following:

• Depending on interest rates and debt maturities, a substantial portion of our cash flow from operations could be dedicated to paying principal and interest on our debt, thereby reducing funds available for our acquisition strategy, capital expenditures or other purposes, including repurchases of outstanding shares of common stock, depending on

market conditions, share price and other factors;

• A significant amount of debt could make us more vulnerable to changes in economic conditions or increases in prevailing interest rates;

• Our ability to obtain additional financing for acquisitions, capital expenditures or for other purposes could be impaired;

• The increase in the amount of debt we have outstanding increases the risk of non-compliance with some of the covenants in our debt agreements which require us to maintain specified financial ratios; and

• We may be more leveraged than some of our competitors, which may result in a competitive disadvantage.

Political and economic changes in foreign countries and markets, including foreign currency fluctuations, may have a material effect on our operating results.

Foreign sales originating from non-U.S. locations were approximately 49% of our total sales in fiscal 2017, and we have manufacturing facilities in a number of foreign countries. A substantial portion of our Avionics & Controls operations is based in Belgium, Canada and the U.K., and a substantial portion of our Sensors & Systems operations is based in France and the U.K. We also have manufacturing operations in China, the Dominican Republic, Germany, India, Japan, Mexico, and Morocco. Doing

business in foreign countries is subject to numerous risks, including political and economic instability, restrictive trade policies of foreign governments, changes in the local labor-relations climate, economic conditions in local markets, health concerns, inconsistent product regulations or unexpected changes in regulatory and other legal requirements by foreign agencies or governments, the imposition of product tariffs and the burdens of complying with a wide variety of international and U.S. export laws and differing regulatory requirements. U.S. international trade policy is uncertain under the new administration, including, for example, the government's decision to renegotiate the North American Free Trade Agreement, which could cause an increase in customs duties that in turn could adversely affect intercompany transactions among Esterline's operating subsidiaries in Canada, Mexico and the U.S., and increase transaction costs with third party suppliers and customers. Further, the U.K. voter approval of an exit from the EU, known as "Brexit," caused and may continue to cause significant volatility in global stock markets and currency exchange rate fluctuations and may create further global economic uncertainty that may adversely impact the economies of the U.K., the EU and other nations in which we conduct business. To the extent that foreign sales are transacted in a foreign currency, we are subject to the risk of losses due to foreign currency fluctuations. In addition, we have substantial assets denominated in foreign currencies, primarily the British pound, Canadian dollar and euro, that are not offset by liabilities denominated in those foreign currencies. These net foreign currency investments are subject to material changes in the event of fluctuations in foreign currencies against the U.S. dollar.

A global recession may adversely affect our business operations and results, capital, and cost of capital.

In the event of a global recession, our customers may choose to delay or postpone purchases from us until the economy and their businesses strengthen. Decisions by current or future customers to forgo or defer purchases and/or our customers' inability to pay for our products may adversely affect our earnings and cash flow. A recession could also adversely affect our future cost of debt and equity. Any inability to obtain adequate financing from debt and equity sources could force us to self-fund strategic initiatives or even forgo some opportunities, potentially harming our financial position, results of operations, and liquidity.

A downturn in the aircraft market could adversely affect our business.

The aerospace industry is cyclical in nature and affected by periodic downturns that are beyond our control. The principal customers for manufacturers of commercial aircraft are the commercial and regional airlines, which can be adversely affected by a number of factors, including a recession, increasing fuel and labor costs, intense price competition, outbreak of infectious disease and terrorist attacks, as well as economic cycles, all of which can be unpredictable and are outside our control. Any decrease in demand resulting from a downturn in the market could adversely affect our business, financial condition, and results of operations.

Our backlog is subject to modification or termination, which may reduce our sales in future periods.

We currently have a backlog of orders based on our contracts with customers. Under many of our contracts, our customers may unilaterally modify or terminate their orders at any time. In addition, the maximum contract value specified under a government contract awarded to us is not necessarily indicative of the sales that we will realize under that contract. For example, we are a sole-source prime contractor for many different military programs with the U.S. DoD. We depend heavily on the government contracts underlying these programs. Over its lifetime, a program may be implemented by the award of many different individual contracts and subcontracts. The funding of government programs is subject to congressional appropriation.

Changes in defense procurement models may make it more difficult for us to successfully bid on projects as a prime contractor and limit sole-source opportunities available to us.

In recent years the trend in combat system design and development appears to be evolving toward the technological integration of various battlefield components, including combat vehicles, command and control network communications, advanced technology artillery systems and robotics. If the U.S. military procurement approach

continues to require this kind of overall battlefield combat system integration, we expect to be subject to increased competition from aerospace and defense companies which have significantly greater resources than we do.

We may lose money or generate less than expected profits on our contracts, including our fixed-price contracts.

Our customers set demanding specifications for product performance, reliability and cost. Some of our government contracts and subcontracts provide for a predetermined, fixed price for the products we make regardless of the costs we incur. Therefore, we must absorb cost overruns, notwithstanding the difficulty of estimating all of the costs we will incur in performing these contracts and in projecting the ultimate level of sales that we may achieve. Our failure to accurately scope the statement of work, anticipate technical problems, estimate costs accurately, integrate technical processes effectively, reduce dependency on sole-source or poor-performing suppliers, control costs or otherwise meet contractual obligations such as timely delivery and meeting quality specifications during performance of a contract may reduce the profitability or cause a loss on the contract. While we believe that we have recorded adequate provisions in our financial statements for losses on our fixed-price and other contracts as required

under GAAP, we cannot assure that our contract loss provisions will be adequate to cover all actual future losses. Therefore, we may incur losses on contracts that we had expected to be profitable, or such contracts may be less profitable than expected.

Our business is subject to government contracting regulations, and our failure to comply with such laws and regulations could harm our operating results and prospects.

We estimate that approximately 21% of our sales in fiscal 2017 were attributable to contracts in which we were either the prime contractor to, or a subcontractor to a prime contractor to, the U.S. government. As a contractor and subcontractor to the U.S. government, we must comply with laws and regulations relating to the formation, security, administration and performance of federal government contracts that affect how we do business with our customers and may impose added costs to our business. For example, these regulations and laws include provisions that contracts we have been awarded are subject to:

• Protest or challenge by unsuccessful bidders;

- Unilateral termination, reduction or modification in the event of changes in government requirements; and

• Significant data security requirements for our information systems.

The accuracy and appropriateness of certain costs and expenses used to substantiate our direct and indirect costs for the U.S. government under both cost-plus and fixed-price contracts are subject to extensive regulation and audit by the Defense Contract Audit Agency, an arm of the U.S. DoD. Responding to governmental audits, inquiries or investigations may involve significant expense and divert management attention. Our failure to comply with these or other government procurement laws and regulations could result in contract termination, suspension or debarment from contracting with the federal government, loss of opportunities to participate in future government programs, civil fines and damages, and criminal prosecution and penalties, any of which could have a material adverse effect on our operating results.

A significant portion of our business depends on U.S. government contracts, which are often subject to competitive bidding, and a failure to compete effectively or accurately anticipate the success of future projects could adversely affect our business.

We obtain many of our U.S. government contracts through a competitive bidding process that subjects us to risks associated with:

• The frequent need to bid on programs in advance of the completion of their design, which may result in unforeseen technological difficulties and/or cost overruns;

• The substantial time and effort, including design, development and marketing activities, required to prepare bids and proposals for contracts that may not be awarded to us; and

• The design complexity and rapid rate of technological advancement of defense-related products.

In addition, in order to win the award of developmental programs, we must be able to align our research and development and product offerings with the government's changing concepts of national defense and defense systems. The government's termination of, or failure to fully fund, one or more of the contracts for our programs would have a negative impact on our operating results and financial condition. Furthermore, we serve as a subcontractor on several military programs that, in large part, involve the same risks as prime contracts.

Overall, we rely on key contracts with U.S. government entities for a significant portion of our sales and business. A substantial reduction in these contracts would materially adversely affect our operating results and financial position.

The market for our products may be affected by our ability to adapt to technological change.

The rapid change of technology is a key feature of all of the markets in which our businesses operate. To succeed in the future, we will need to design, develop, manufacture, assemble, test, market, and support new products and enhancements to our existing products in a timely and cost-effective manner. Historically, our technology has been developed through internal research and development expenditures, as well as customer-sponsored research and development programs. There is no guarantee that we will continue to maintain, or benefit from, comparable levels of research and development in the future. In addition, our competitors may develop technologies and products that are more effective than those we develop or that render our technology and products obsolete or noncompetitive. Furthermore, our products could become unmarketable if new industry standards emerge. We cannot assure that our existing products will not require significant modifications in the future to remain competitive or that new products we introduce will be accepted by our customers, nor can we assure that we will successfully identify new opportunities, continue to have the needed financial resources to develop new products in a timely or cost-effective manner or execute on a research and development program effectively to yield expected or any return on investment.

The airline industry is heavily regulated and if we fail to comply with applicable requirements, our results of operations could suffer.

Governmental agencies throughout the world, including the U.S. Federal Aviation Administration (FAA), prescribe standards and qualification requirements for aircraft components, including virtually all commercial airline and general aviation products, as well as regulations regarding the repair and overhaul of aircraft engines. Specific regulations vary from country to country, although compliance with FAA requirements generally satisfies regulatory requirements in other countries. We include, with the replacement parts that we sell to our customers, documentation certifying that each part complies with applicable regulatory requirements and meets applicable standards of airworthiness established by the FAA or the equivalent regulatory agencies in other countries. In order to sell our products, we and the products we manufacture, must also be certified by our individual OEM customers. If any of the material authorizations or approvals qualifying us to supply our products is revoked or suspended, then the sale of the subject product would be prohibited by law, which would have an adverse effect on our business, financial condition, and results of operations.

From time to time, the FAA or equivalent regulatory agencies in other countries propose new regulations or changes to existing regulations, which are usually more stringent than existing regulations. If these proposed regulations are adopted and enacted, we may incur significant additional costs to achieve compliance, which could have a material adverse effect on our business, financial condition, and results of operations.

We depend on the continued contributions of our executive officers and other key management, each of whom would be difficult to replace.

Our future success depends to a significant degree upon the continued contributions of our senior management and our ability to attract and retain other highly qualified management personnel. We face competition for management from other companies and organizations. Therefore, we may not be able to retain our existing management personnel or fill new management positions or vacancies created by expansion or turnover at our existing compensation levels. Although we have entered into change of control agreements with members of senior management, we do not have employment contracts with our key executives, nor have we purchased “key-person” insurance on the lives of any of our key officers or management personnel to reduce the impact to our company that the loss of any of them would cause. Specifically, the loss of any of our executive officers would disrupt our operations and divert the time and attention of our remaining officers. Additionally, failure to attract and retain highly qualified management personnel would damage our business prospects.

If we are unable to protect our intellectual property rights adequately, the value of our products could be diminished.

Our success is dependent in part on obtaining, maintaining and enforcing our proprietary rights and our ability to avoid infringing on the proprietary rights of others. While we take precautionary steps to protect our technological advantages and intellectual property and rely in part on patent, trademark, trade secret and copyright laws, we cannot assure that the precautionary steps we have taken will completely protect our intellectual property rights. Because patent applications in the United States are maintained in secrecy until either the patent application is published or a patent is issued, we may not be aware of third-party patents, patent applications and other intellectual property relevant to our products that may block our use of our intellectual property or may be used in third-party products that compete with our products and processes. In the event a competitor successfully challenges our products, processes, patents or licenses or claims that we have infringed upon their intellectual property, we could incur substantial litigation costs defending against such claims, be required to pay royalties, license fees or other damages or be barred from using the intellectual property at issue, any of which could have a material adverse effect on our business, operating results, and financial condition.

In addition to our patent rights, we also rely on unpatented technology, trade secrets and confidential information. Others may independently develop substantially equivalent information and techniques or otherwise

gain access to or disclose our technology. We may not be able to protect our rights in unpatented technology, trade secrets and confidential information effectively. We require each of our employees and consultants to execute a confidentiality agreement at the commencement of an employment or consulting relationship with us. However, these agreements may not provide effective protection of our information or, in the event of unauthorized use or disclosure, they may not provide adequate remedies.

Future asbestos claims could harm our business.

We are subject to potential liabilities relating to certain products we manufactured containing asbestos. We had insurance coverage for asbestos exposures in products prior to November 1, 2003. Since November 1, 2003, insurance coverage for asbestos claims has been unavailable. Our policy coverage for exposures prior to November 1, 2003, declines ratably, by formula, as the number of years increases since coverage expired. Accordingly, we continue to have partial insurance coverage for exposure to asbestos contained in our products prior to November 1, 2003. To date, asbestos claims have not been material to our consolidated results of operations or financial position.

As a result of the termination of the NASA Space Shuttle program, manufacturing of rocket engine insulation material containing asbestos ceased in July 2010. In December 2011, we dismantled our facility used to manufacture the asbestos-based insulation for the Space Shuttle program. We have an agreement for indemnification for certain losses we may incur as a result of asbestos claims relating to a product we previously manufactured, but we cannot assure that this indemnification agreement will fully protect us from losses arising from asbestos claims.

To the extent we are not insured or indemnified for losses from asbestos claims relating to our products, asbestos claims could adversely affect our operating results and our financial condition.

Environmental laws and regulations may subject us to significant liability.

Our business and our facilities are subject to a number of federal, state, local and foreign laws, regulations and ordinances governing, among other things, the use, manufacture, storage, handling and disposal of hazardous materials and certain waste products. Among these environmental laws are rules by which a current or previous owner or operator of land may be liable for the costs of investigation, removal or remediation of hazardous materials at such property. In addition, these laws typically impose liability regardless of whether the owner or operator knew of, or was responsible for, the presence of any hazardous materials. Persons who arrange for the disposal or treatment of hazardous materials may be liable for the costs of investigation, removal or remediation of such substances at the disposal or treatment site, regardless of whether the affected site is owned or operated by them.

Because we own and operate, and previously owned and operated, a number of facilities that use, manufacture, store, handle or arrange for the disposal of various hazardous materials, we may incur costs for investigation, removal and remediation, as well as capital costs, associated with compliance with environmental laws. At the time of our asset acquisition of the Electronic Warfare Passive Expendables Division of BAE Systems North America (BAE), certain environmental remedial activities were required under a Part B Permit issued to the infrared decoy flare facility by the Arkansas Department of Environmental Quality under the Federal Resource Conservation and Recovery Act. The Part B Permit was transferred to our subsidiary, Armtec, along with the remedial obligations. Under the terms of the asset purchase agreement, BAE agreed to perform and pay for these remedial obligations at the infrared decoy flare facility up to a maximum amount of \$25.0 million. BAE is currently conducting monitoring activities as required under the asset purchase agreement.

At the end of fiscal 2017, we had a \$2.0 million liability in current liabilities of businesses held for sale related to the removal of hazardous material at our Wallop countermeasure flare facility.

Although environmental costs have not been material in the past, we cannot assure that these matters, or any similar liabilities that arise in the future, will not exceed our resources, nor can we completely eliminate the risk of accidental contamination or injury from these materials.

An accident at our combustible ordnance or flare countermeasure operations could harm our business.

We are subject to potential liabilities in the event of an accident at our combustible ordnance and flare countermeasure operations. Our products are highly flammable during certain phases of the manufacturing process. Accordingly, our facilities are designed to isolate these operations from direct contact with employees. Our overall safety infrastructure is compliant with regulatory guidelines. In addition, we utilize hazard detection and intervention systems. Our employees receive safety training and participate in internal safety demonstrations. We continuously track safety effectiveness in relation to the U.S. Bureau of Labor Statistics, OSHA, and the HSE in the U.K. to help ensure performance is within industry standards. In addition, we perform on-going process safety hazard analyses, which are conducted by trained safety teams to identify risk areas that arise. We monitor progress through review of safety action reports that are produced as part of our operations. Although we believe our safety programs are robust and our compliance with our programs is high, it is possible for an accident to occur. We have had incidents in the past, including accidents at our Arkansas plant in 2014 and 2016 and an accident at our Wallop plant in 2016. The

accidents in 2016 resulted in three serious injuries and the closure of our Arkansas plant for approximately 4 months. We are insured in excess of our deductible on losses from property, loss of business, and for personal liability claims from an accident; however, we may not be able to maintain insurance coverage in the future at an acceptable cost. Significant losses not covered by insurance could have a material adverse effect on our business, financial condition, and results of operations.

We may be required to defend lawsuits or pay damages in connection with the alleged or actual harm caused by our products.

We face an inherent business risk of exposure to product liability claims in the event that the use of our products is alleged to have resulted in harm to others or to property. For example, our operations expose us to potential liabilities for personal injury or death as a result of the failure of an aircraft component that has been designed, manufactured or serviced by us. We may incur significant liability if product liability lawsuits against us are successful. While we believe our current general liability and

product liability insurance is adequate to protect us from future product liability claims, we cannot assure that coverage will be adequate to cover all claims that may arise. Additionally, we may not be able to maintain insurance coverage in the future at an acceptable cost. Significant losses not covered by insurance or for which third-party indemnification is not available could have a material adverse effect on our business, financial condition, and results of operations.

Item 2. Properties

The following table summarizes our properties that are greater than 100,000 square feet or related to a principal operation, including identification of the business segment, as of September 29, 2017:

Location	Type of Facility	Business Segment	Approximate Square Footage	Owned or Leased
Brea, CA	Office & Plant	Advanced Materials	325,000	Owned
East Camden, AR	Office & Plant	Advanced Materials	276,000	Leased
Stillington, U.K.	Office & Plant	Advanced Materials	275,000	Owned
Montréal, Canada	Office & Plant	Avionics & Controls	272,000	Owned
Everett, WA	Office & Plant	Avionics & Controls	216,000	Leased
Champagné, France	Office & Plant	Sensors & Systems	191,000	Owned
Tijuana, Mexico	Office & Plant	Advanced Materials	141,000	Leased*
Coeur d'Alene, ID	Office & Plant	Avionics & Controls	140,000	Leased
Coachella, CA	Office & Plant	Advanced Materials	140,000	Owned
Marolles, France	Office & Plant	Sensors & Systems	140,000	Owned
Kortrijk, Belgium	Office & Plant	Avionics & Controls	130,000	Owned
Tijuana, Mexico	Office & Plant	Sensors & Systems	129,000	Leased*
Buena Park, CA	Office & Plant	Sensors & Systems	115,000	Owned**
Tangier, Morocco	Office & Plant	Sensors & Systems	115,000	Leased
Bourges, France	Office & Plant	Sensors & Systems	109,000	Owned
Farnborough, U.K.	Office & Plant	Sensors & Systems	103,000	Leased
Sylmar, CA	Office & Plant	Avionics & Controls	103,000	Leased
Kent, WA	Office & Plant	Advanced Materials	100,000	Owned
Valencia, CA	Office & Plant	Advanced Materials	88,000	Owned
Tijuana, Mexico	Office & Plant	Sensors & Systems	73,000	Leased*
Gloucester, U.K.	Office & Plant	Advanced Materials	68,000	Leased
Tijuana, Mexico	Office & Plant	Sensors & Systems	61,000	Leased*

* Included in the Company's Tijuana manufacturing campus.

** The building is located on a parcel of land covering 16.1 acres that is leased by the Company.

In total, we own approximately 2,400,000 square feet and lease approximately 2,300,000 square feet of manufacturing facilities and properties.

Item 3. Legal Proceedings

From time to time we are involved in legal proceedings arising in the ordinary course of business. We believe that adequate reserves for these liabilities have been made and that there is no litigation pending that could have a material adverse effect on our results of operations and financial condition.

See Note 12 to the consolidated financial statements included in Part 1, Item 8 of this report for information regarding legal proceedings.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Price of Esterline Common Stock

In Dollars

For Fiscal Years	2017		2016	
	High	Low	High	Low
Quarter				
First	\$94.73	\$69.85	\$96.44	\$75.86
Second	96.50	80.76	81.99	45.12
Third	102.70	83.35	70.52	56.72
Fourth	100.60	76.00	79.10	58.71

Principal Market – New York Stock Exchange

At the end of fiscal 2017, there were approximately 219 holders of record of the Company's common stock. On November 16, 2017, there were 217 holders of record of our common stock.

On June 19, 2014, our Board of Directors approved a \$200 million share repurchase program. On March 11, 2015, our Board of Directors approved an additional \$200 million for the share repurchase program. Under the program, we are authorized to repurchase up to \$400 million of outstanding shares of common stock from time to time, depending on market conditions, share price and other factors. We made no repurchases of common stock during fiscal 2017. Subsequent to September 29, 2017, we repurchased 37,500 shares of common stock for approximately \$2.6 million through November 16, 2017. There is \$88.9 million available for purchase under our share repurchase program after these recent purchases.

No cash dividends were paid during fiscal 2017 and 2016. Our current secured credit facility restricts the amount of dividends we can pay. We do not anticipate paying any dividends in the foreseeable future.

The following graph shows the performance of the Company's common stock compared to the S&P 500 Index, the S&P MidCap 400 Index, and the S&P 400 Aerospace & Defense Index for a \$100 investment made on October 26, 2012.

Item 6. Selected Financial Data

Selected Financial Data

In Thousands, Except Per Share Amounts

For Fiscal Years	Twelve Months Ended				
	2017	2016	2015 (Unaudited) (Recast)	2014	2013
Operating Results ¹					
Net sales	\$2,002,195	\$1,992,631	\$2,002,793	\$2,029,471	\$1,866,659
Cost of Sales	1,336,736	1,331,386	1,323,405	1,314,762	1,168,632
Selling, general and administrative	375,413	395,274	384,156	361,190	364,149
Research, development and engineering	103,024	95,939	100,426	97,591	88,982
Restructuring charges	-	4,873	8,143	13,642	-
Insurance recovery	(7,789)	(5,000)	-	-	-
Gain on sale of product line	-	-	-	-	(2,264)
Goodwill impairment	-	-	-	-	3,454
Other income	-	-	(12,503)	-	-
Operating earnings from continuing operations	194,811	170,159	199,166	242,286	243,706
Interest income	(527)	(367)	(632)	(555)	(535)
Interest expense	30,208	30,091	33,114	33,010	39,637
Loss on extinguishment of debt	-	-	11,451	533	946
Earnings from continuing operations before income taxes	165,130	140,435	155,233	209,298	203,658
Income tax expense	38,928	22,535	26,911	43,716	32,803
Earnings from continuing operations attributable to Esterline, net of tax	124,698	116,951	127,895	165,029	169,125
Earnings (loss) from discontinued operations attributable to Esterline, net of tax	(7,311)	(15,266)	(40,319)	(62,611)	(4,391)
Net earnings attributable to Esterline	117,387	101,685	87,576	102,418	164,734
Gross profit as a percent of sales	33.2 %	33.2 %	33.9 %	35.2 %	37.4 %

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Selling, general and administrative

as a percent of sales	18.8	%	19.8	%	19.2	%	17.8	%	19.5	%
-----------------------	------	---	------	---	------	---	------	---	------	---

Research, development and

engineering as a percent of sales	5.1	%	4.8	%	5.0	%	4.8	%	4.8	%
-----------------------------------	-----	---	-----	---	-----	---	-----	---	-----	---

Earnings from continuing operations

before income taxes as a percent

of sales	8.2	%	7.0	%	7.8	%	10.3	%	10.9	%
----------	-----	---	-----	---	-----	---	------	---	------	---

Earnings from continuing operations

attributable to Esterline, net of tax,

as a percent of sales	6.2	%	5.9	%	6.4	%	8.1	%	9.1	%
-----------------------	-----	---	-----	---	-----	---	-----	---	-----	---

Earnings (loss) per share attributable to Esterline - diluted:

Continuing operations	\$4.15		\$3.93		\$4.10		\$5.09		\$5.33	
-----------------------	--------	--	--------	--	--------	--	--------	--	--------	--

Discontinued operations	(0.24)	(0.51)	(1.29)	(1.93)	(0.14)
-------------------------	-------	---	-------	---	-------	---	-------	---	-------	---

Earnings (loss) per share - diluted	3.91		3.42		2.81		3.16		5.19	
-------------------------------------	------	--	------	--	------	--	------	--	------	--

Selected Financial Data

In Thousands, Except Per Share Amounts

For Fiscal Years	Eleven Months Ended		
	2015	2014 (Unaudited) (Recast)	
Operating Results ¹			
Net sales	\$1,774,449	\$1,801,127	
Cost of Sales	1,185,056	1,176,413	
Selling, general and administrative	346,781	323,957	
Research, development and engineering	91,491	88,656	
Restructuring charges	6,639	12,103	
Other income	(12,503)	-	
Operating earnings from continuing operations	156,985	199,998	
Interest income	(578)	(501)	
Interest expense	30,090	29,986	
Loss on extinguishment of debt	11,451	533	
Earnings from continuing operations before income taxes	116,022	169,980	
Income tax expense	18,956	35,759	
Earnings from continuing operations attributable to Esterline, net of tax	96,665	133,694	
Earnings (loss) from discontinued operations attributable to Esterline, net of tax	(37,053)	(59,240)	
Net earnings attributable to Esterline	59,612	74,454	
Gross profit as a percent of sales	33.2	% 34.7	%
Selling, general and administrative as a percent of sales	19.5	% 18.0	%
Research, development and engineering as a percent of sales	5.2	% 4.9	%
Earnings (loss) per share attributable to Esterline - diluted:			
Continuing operations	\$3.10	\$4.12	
Discontinued operations	(1.19)	(1.83)	
Earnings (loss) per share - diluted	1.91	2.29	

Selected Financial Data

In Thousands, Except Per Share Amounts

For Fiscal Years	2017	2016	2015	2014	2013
Financial Structure					
Total assets	\$3,130,323	\$3,032,031	\$3,000,488	\$3,193,467	\$3,262,112
Credit facilities	50,000	155,000	160,000	100,000	130,000
Long-term debt, net	709,424	698,796	701,457	509,720	537,859
Total Esterline shareholders' equity	1,836,607	1,600,557	1,537,467	1,887,817	1,873,605
Weighted average shares					
outstanding - diluted	30,003	29,764	31,215	32,448	31,738
Other Selected Data					
Cash flows provided (used) by					
operating activities	\$193,461	\$167,158	\$144,295	\$216,364	\$250,772
Cash flows provided (used) by					
investing activities	(57,440)	(65,943)	(173,568)	(89,851)	(93,721)
Cash flows provided (used) by					
financing activities	(94,426)	(29,388)	967	(55,208)	(141,023)
Net increase (decrease) in cash	49,306	67,165	(46,789)	58,966	18,503
EBITDA from continuing					
operations ²	297,197	269,021	245,674	342,342	339,616
Capital expenditures ³	58,040	68,472	49,341	45,678	55,335
Interest expense	30,208	30,091	30,090	33,010	39,637
Depreciation and amortization					
from continuing operations	102,386	98,862	88,689	100,056	95,910
Ratio of debt to EBITDA ⁴	2.6	3.2	3.5	1.8	2.0
Ratio of debt to equity	42.3	% 54.4	% 56.9	% 33.0	% 36.8

¹Operating results reflect the segregation of continuing operations from discontinued operations. See Note 1 to the Consolidated Financial Statements. Operating results include the acquisitions of EAD in January 2015, Sunbank in December 2013, and Gamesman in February 2013. See Note 15 to the Consolidated Financial Statements.

²EBITDA from continuing operations is a measurement not calculated in accordance with GAAP. We define EBITDA from continuing operations as operating earnings from continuing operations plus depreciation and amortization (excluding amortization of debt issuance costs). We do not intend EBITDA from continuing operations to represent cash flows from continuing operations or any other items calculated in accordance with GAAP, or as an indicator of Esterline's operating performance. Our definition of EBITDA from continuing operations may not be comparable with EBITDA from continuing operations as defined by other companies. We believe EBITDA is

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

commonly used by financial analysts and others in the aerospace and defense industries and thus provides useful information to investors. Our management and certain financial creditors use EBITDA as one measure of our leverage capacity and debt servicing ability, and is shown here with respect to Esterline for comparative purposes. EBITDA is not necessarily indicative of amounts that may be available for discretionary uses by us. EBITDA includes goodwill impairment charges of \$3,454 in fiscal 2013. The following table reconciles operating earnings from continuing operations to EBITDA from continuing operations:

In Thousands					
For Fiscal Years	2017	2016	2015	2014	2013
Operating earnings from					
continuing operations	\$ 194,811	\$ 170,159	\$ 156,985	\$ 242,286	\$ 243,706
Depreciation and amortization					
from continuing operations	102,386	98,862	88,689	100,056	95,910
EBITDA from continuing					
operations	\$ 297,197	\$ 269,021	\$ 245,674	\$ 342,342	\$ 339,616

³Excludes capital expenditures accounted for as a capitalized lease obligation of \$4,010, \$11,260, \$2,753 and \$11,691 in fiscal 2017, 2016, 2014 and 2013, respectively.

⁴We define the ratio of debt to EBITDA as total debt divided by EBITDA.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes in Item 8 of this report. This discussion and analysis contains forward-looking statements and estimates that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including, but not limited to, those discussed in the “Forward-Looking Statements” section in Item 1 of this report and the “Risk Factors” section in Item 1A of this report.

On June 5, 2014, we changed the Company’s fiscal year end to the last Friday of September from the last Friday in October. We reported our financial results for the 11-month transition period of November 1, 2014, through October 2, 2015, on our Transition Report on Form 10-K, and thereafter for the 12-month period ending the last Friday of September of each year, beginning with the 12-month period ending September 30, 2016. Refer to the Transition Report on Form 10-K for the eleven months ended October 2, 2015, for additional information regarding our fiscal year change.

Unless otherwise noted in this Item 7:

•When financial results for the 2016 fiscal year are compared to the financial results for the prior-year period, the results compare the twelve-month periods ended September 30, 2016, and October 2, 2015, respectively. The following tables show the months included in the various comparison periods:

Fiscal 2016
(12-month)
Results Compared
with Fiscal 2015
(12-month recast,
unaudited)

Fiscal
2015
Fiscal (12-month
2016 recast,
(12-month)unaudited)

October
2015 October
- 2014 -
SeptemberSeptember
2016 2015

OVERVIEW

We operate our businesses in three segments: Avionics & Controls, Sensors & Systems and Advanced Materials. Our segments are structured around our technical capabilities. All segments include sales to domestic, international, defense and commercial customers.

The Avionics & Controls segment includes avionics systems, control and communication systems, and interface technologies capabilities. Avionics systems designs and develops cockpit systems integration and avionics solutions for commercial and military applications and visualization solutions for a variety of demanding defense and commercial aerospace applications. Control and communication systems designs and manufactures technology interface systems for military and commercial aircraft and land- and sea-based military vehicles. Additionally, control and communication systems designs and manufactures military audio and data products for severe battlefield environments and communication control systems to enhance security and aural clarity in military applications. Interface technologies manufactures and develops custom control panels and input systems for medical, industrial, military and gaming industries.

The Sensors & Systems segment includes power systems, connection technologies and advanced sensors capabilities. Power systems develops and manufactures electrical power switching and other related systems, principally for aerospace and defense customers. Connection technologies develops and manufactures highly engineered connectors for harsh environments and serves the aerospace, defense & space, power generation, rail and industrial equipment markets. Advanced sensors develops and manufactures high-precision temperature and pressure sensors for aerospace and defense customers.

The Advanced Materials segment includes engineered materials and defense technologies capabilities. Engineered materials develops and manufactures thermally engineered components and high-performance elastomer products used in a wide range of commercial aerospace and military applications. Defense technologies develops and manufactures combustible ordnance components and warfare countermeasure devices for military customers.

Our current business and strategic plan focuses on the continued development of products and solutions principally for aerospace and defense markets. We are concentrating our efforts to expand our capabilities in these markets, anticipate the global needs of our customers and respond to such needs with comprehensive solutions. These efforts focus on continuous research and new product development, acquisitions and strategic realignments of operations to expand our capabilities as a more comprehensive supplier to our customers across our entire product offering.

In March 2014 we entered into a Consent Agreement with the DTCC to resolve alleged ITAR civil violations. Among other things, the Consent Agreement required us to pay a \$20 million penalty, of which \$10 million was suspended and eligible for

offset credit. In fiscal 2016 the DTCC approved costs we incurred to implement compliance measures to fully offset the \$10 million suspended payment. In fiscal 2017 the Consent Agreement was closed.

In fiscal 2014 our Board of Directors approved the plan to sell certain non-core business units including Eclipse Electronic Systems, Inc. (Eclipse), a manufacturer of embedded communication intercept receivers for signal intelligence applications; Wallop Defence Systems, Ltd. (Wallop), a manufacturer of flare countermeasure devices; a small distribution business; Pacific Aerospace and Electronics Inc. (PA&E), a manufacturer of hermetically sealed electrical connectors; and a small manufacturing business. As of September 30, 2017, we have sold these business units, except for the land and building at Eclipse and Wallop, which are currently held for sale. These businesses are reported as discontinued operations.

In fiscal 2017 we evaluated the on-going performance challenges at our Kirkhill elastomer business, resulting in the decision to explore all strategic options associated with the business. The historic performance volatility of this business was a consideration in this decision. In the fourth quarter of fiscal 2017, the results of operations of Kirkhill declined by \$10 million from the prior-year period, resulting in a loss of \$5 million reflecting lower sales volumes of certain defense products under a new long-term contract which replaced a higher priced product. For fiscal 2017 the decline was \$16 million, resulting in a fiscal year loss of \$10 million. The lower priced product is expected to reduce sales by \$10 million in fiscal 2018 compared with fiscal 2017. We are working to offset this impact by decreasing manufacturing expenses through improved efficiency and higher prices on certain commercial contracts. Kirkhill is included in our Advanced Materials segment.

On June 19, 2014, our Board of Directors approved a share repurchase program and authorized the repurchase of up to \$200 million of outstanding shares of common stock. In March 2015 our Board of Directors authorized an additional \$200 million for the repurchase of outstanding shares of common stock under the program. Under the program, the Company is authorized to repurchase up to \$400 million of the outstanding shares of common stock from time to time, depending on market conditions, share price and other factors. There were no shares repurchased during fiscal 2017. In fiscal 2016 we repurchased 304,577 shares under this program at an average price paid per share of \$61.51, for an aggregate purchase price of \$18.7 million. Subsequent to September 29, 2017, we repurchased 37,500 shares of common stock for approximately \$2.6 million through November 16, 2017. There is \$88.9 million available for purchase under our share repurchase program after these recent purchases.

Consolidated sales for the fourth quarter of fiscal 2017 were \$531.5 million compared with \$543.8 million in the prior-year period. The \$12.3 million decrease was mainly due to lower sales for Avionics & Controls segment products of \$27.4 million driven by lower demand for defense products and sales in adjacent markets. This decrease was partially offset by higher sales of Sensors & Systems and Advanced Materials segment products. The increase in Sensors & Systems reflected strong demand principally for power systems, and the increase in Advanced Materials was mainly due to a recovery of sales of flare countermeasures from an energetic incident at one of our countermeasure operations in the third quarter of fiscal 2016.

Gross margin was 32.9% in the fourth quarter of fiscal 2017 compared with 35.6% in the prior-year period. Gross margin in the fourth quarter of fiscal 2017 was impacted mainly by higher manufacturing costs at Sensors & Systems and lower sales/mix and higher manufacturing costs at Advanced Materials.

For further explanation regarding changes in sales and gross profit in the fourth quarter of fiscal 2017 over the prior-year period, please see the table at the end of the Overview section for a roll forward presentation of sales and gross profit.

Selling, general and administrative expenses decreased by \$12.9 million in the fourth quarter of fiscal 2017 over the prior-year period mainly due to bad debt expense of \$9 million in the prior-year for Avionics & Controls segment customers.

In fiscal 2017 we received a \$7.8 million insurance recovery resulting from an energetic incident at one of our countermeasure operations, which occurred in the third quarter of fiscal 2016. The incident resulted in injury to two employees, some damage to the building, the destruction of inventory and certain equipment, and the facility was shut down for approximately four months. We also received a \$5.0 million insurance recovery in the fourth quarter of fiscal 2016. The insurance recovery is reported as a separate line item on the Consolidated Statement of Operations and Comprehensive Income (Loss) and is included in Advanced Materials segment earnings. Sales and gross margin of our countermeasure operations business continued to be impacted by the controlled restart of operations following the incident through the first half of fiscal 2017. The factory achieved planned production levels in the third quarter of fiscal 2017. We do not anticipate additional insurance recoveries arising from this matter.

The income tax rate was 27.2% in the fourth quarter of fiscal 2017 compared with 17.6% in the prior-year period, reflecting U.K. limitations on interest expense deductions.

Earnings from continuing operations in the fourth quarter of fiscal 2017 were \$36.7 million, or \$1.22 per diluted share, compared with \$52.0 million, or \$1.75 per diluted share, in the prior-year period. Loss from discontinued operations in the

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

fourth quarter of fiscal 2017 was \$1.1 million, or \$0.04 per diluted share, compared with income of \$0.2 million, or \$0.01 per diluted share, in the prior-year period. Net income in the fourth quarter of fiscal 2017 was \$35.6 million, or \$1.18 per diluted share, compared with \$52.3 million, or \$1.76 per diluted share, in the prior-year period.

Sales for fiscal 2017 were \$2.002 billion compared to \$1.993 billion in the prior-year period. The \$9.6 million increase in sales mainly reflected a \$30 million increase in Sensors & Systems segment sales, partially offset by a \$19 million decrease in Avionics & Controls segment sales. The increase in Sensors & Systems segment sales was due to higher demand mainly for advanced sensors and power systems products. The decrease in Avionics & Controls segment sales was due to lower demand for defense products and lower sales to adjacent markets.

Consolidated gross margin was 33.2% in both fiscal 2017 and the prior-year period, reflecting strong sales/mix at Sensors & Systems, offset by lower sales/mix and higher manufacturing costs at Advanced Materials mainly from our elastomer business.

Selling, general and administrative expense decreased by \$19.9 million to \$375.4 million or 18.8% of sales, compared with fiscal 2016, mainly due to decreased bad debt and integration expense of \$8 million and \$7 million, respectively.

Research, development and engineering spending increased by \$7.1 million to \$103.0 million or 5.1% of sales, compared with fiscal 2016, reflecting higher activity across all segments.

The income tax rate was 23.6% in fiscal 2017 compared with 16.0% in the prior-year period, mainly reflecting U.K. limitations on interest expense deductions.

Earnings from continuing operations in fiscal 2017 were \$124.7 million, or \$4.15 per diluted share, compared with \$117.0 million, or \$3.93 per diluted share, in the prior-year period. Loss from discontinued operations in fiscal 2017 was \$7.3 million, or \$0.24 per diluted share, compared with \$15.3 million, or \$0.51 per diluted share, in the prior-year period. Net income for fiscal 2017 was \$117.4 million, or \$3.91 per diluted share, compared with \$101.7 million, or \$3.42 per diluted share, in the prior-year period.

Cash flows from operating activities were \$193.5 million in fiscal 2017 compared with \$167.2 million in the prior-year period, mainly reflecting higher net earnings and cash receipts from the sale of products.

Our sales, gross profit and earnings results for the three and twelve month periods ended September 29, 2017, compared with the three and twelve month periods ended September 30, 2016, included a number of significant items which are summarized in the tables below.

The following is a roll forward of sales and gross profit from the fourth quarter of fiscal 2016 to the fourth quarter of fiscal 2017:

In Thousands	Avionics & Controls	Sensors & Systems	Advanced Materials	Total
Sales:				
Three-month period ended September 30, 2016	\$253,001	\$181,196	\$109,555	\$543,752
Foreign currency gain (loss)	3,611	4,473	(93)	7,991
Forward contract gain (loss)	3,963	1,065	-	5,028
Sales volume	(34,941)	5,229	(13,547)	(43,259)
Defense Technologies energetic incident	-	-	18,015	18,015
Three-month period ended September 29, 2017	\$225,634	\$191,963	\$113,930	\$531,527

Gross Profit:				
Three-month period ended September 30, 2016	91,580	66,521	35,668	193,769
Foreign currency gain (loss)	1,191	846	(23)	2,014
Forward contract gain (loss)	3,972	1,065	-	5,037
Volume/mix	(18,955)	1,420	(12,899)	(30,434)
Lower (higher) manufacturing costs	140	(3,151)	(1,500)	(4,511)
Business integration	897	-	-	897
Cost initiatives	-	566	849	1,415
Defense Technologies energetic incident	-	-	7,624	7,624
Other	-	(2,135)	1,188	(947)
Three-month period ended September 29, 2017	\$78,825	\$65,132	\$30,907	\$174,864

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

The following is a roll forward of sales and gross profit from fiscal 2016 to fiscal 2017:

In Thousands	Avionics & Controls	Sensors & Systems	Advanced Materials	Total
Sales:				
Twelve-month period ended September 30, 2016	\$860,494	\$696,032	\$436,105	\$1,992,631
Foreign currency gain (loss)	469	(2,919)	(10,082)	(12,532)
Forward contract gain (loss)	10,647	(469)	-	10,178
Sales volume	(30,533)	33,320	(6,833)	(4,046)
Defense Technologies energetic incident	-	-	15,964	15,964
Twelve-month period ended September 29, 2017	\$841,077	\$725,964	\$435,154	\$2,002,195
Gross Profit:				
Twelve-month period ended September 30, 2016	282,300	245,966	132,979	661,245
Foreign currency gain (loss)	1,038	(908)	(2,487)	(2,357)
Forward contract gain (loss)	10,790	(469)	-	10,321
Volume/mix	(15,685)	17,335	(7,512)	(5,862)
Lower (higher) manufacturing costs	(4,463)	(6,222)	(4,770)	(15,455)
Factory layout costs (Kaikaku)	1,597	-	-	1,597
Business integration	4,712	-	-	4,712
Cost initiatives	57	1,899	1,894	3,850
Defense Technologies energetic incident	-	-	5,503	5,503
Other	1,097	(79)	887	1,905
Twelve-month period ended September 29, 2017	\$281,443	\$257,522	\$126,494	\$665,459

The following table shows the average foreign exchange rates for the British pound, Canadian dollar and euro relative to the U.S. dollar for the three and twelve month periods ended September 29, 2017, and September 30, 2016.

	Three Months Ended			Twelve Months Ended		
	September 29, 2017	September 30, 2016	Change	September 29, 2017	September 30, 2016	Change
GBP to USD	1.3076	1.3164	(0.7)%	1.2712	1.4208	(10.5)%
CAD to USD	0.7973	0.7680	3.8%	0.7616	0.7579	0.5%
EURO to USD	1.1765	1.1188	5.2%	1.1060	1.1077	(0.2)%

The following tables show the impact of changes in the foreign currency exchange rates for the British pound, Canadian dollar and euro relative to the U.S. dollar on operating earnings during the fourth quarter of fiscal 2017, compared with the prior-year period.

In Thousands

Advanced

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

	Avionics & Controls	Sensors & Systems	Materials	Total
Foreign currency gain (loss)	\$(2,847)	\$(526)	\$ 954	\$(2,419)
Forward contract gain (loss)	5,828	845	1,451	8,124
Impact on Operating Earnings (Loss)	\$ 2,981	\$ 319	\$ 2,405	\$ 5,705

The following tables show the impact of changes in the foreign currency exchange rates for the British pound, Canadian dollar and euro relative to the U.S. dollar on operating earnings during fiscal 2017, compared with the prior-year period.

In Thousands	Avionics & Controls	Sensors & Systems	Advanced Materials	Total
Foreign currency gain (loss)	\$ 400	\$(705)	\$(6,572)	\$(6,877)
Forward contract gain (loss)	13,439	(460)	10,156	23,135
Impact on Operating Earnings (Loss)	\$ 13,839	\$(1,165)	\$ 3,584	\$ 16,258

Results of Operations

For further explanation, please see the roll forward table of sales and gross profit at the end of the Overview section.

Fiscal 2017 Compared with Fiscal 2016

Sales for fiscal 2017 increased by \$9.6 million, or 0.5%, from fiscal 2016.

In Thousands	Increase (Decrease)		
	From Prior Year	2017	2016
Avionics & Controls	(2.3)%	\$841,077	\$860,494
Sensors & Systems	4.3%	725,964	696,032
Advanced Materials	(0.2)%	435,154	436,105
Total Net Sales		\$2,002,195	\$1,992,631

The \$19 million decrease in Avionics & Controls sales over fiscal 2016 mainly reflected the following:

- Lower sales volumes of avionics systems of \$8 million mainly due to the T-6B military trainer program for the U.S. Navy nearing completion
- Lower sales volumes of control and communication systems of \$17 million due to decreased sales of headset communication devices and cockpit switch components for older generation aircraft nearing end of service life
- Lower sales volumes of interface technologies mainly for industrial applications of \$5 million
- Partially offset by favorable effect of changes in foreign currency exchange rates of \$11 million

The \$30 million increase in Sensors & Systems sales over the prior-year period principally reflected the following:

- Higher sales of power systems of \$16 million principally for ground fault indicators of \$6 million due to an FAA requirement completed in the third quarter of fiscal 2017, and higher sales of power systems for defense and industrial applications
- Higher sales volumes of connection technologies systems for industrial applications of \$9 million
- Higher sales of advanced sensors of \$8 million due to equally strong OEM and aftermarket demand
- Unfavorable effect of foreign currency exchange rates of \$3 million

The \$1 million decrease in Advanced Materials sales over the prior-year period mainly reflected the following:

- Decreased sales volumes of engineered materials of \$4 million mainly due to a new long-term contract for defense applications replacing a higher priced product
- Decreased sales volumes of combustible ordnance of \$3 million
- Unfavorable effect of foreign currency exchange rates of \$10 million
- These decreases were offset by higher sales volumes of countermeasure flare devices of \$16 million mainly due to the return of full production following the May 2016 incident noted in the Overview section

Foreign sales originating from non-U.S. locations, together with export sales by domestic operations, totaled \$1.2 billion for both fiscal 2017 and 2016, respectively, and accounted for 58.7% and 57.9% of our sales in fiscal 2017 and 2016, respectively.

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Overall, gross margin was 33.2% for both fiscal 2017 and 2016. Gross profit was \$665.5 million and \$661.2 million for fiscal 2017 and 2016, respectively. Gross profit was impacted by \$3.9 million in restructuring expense and \$4.3 million in integration expense in fiscal 2016. Gross profit and gross margin percentage by segment were as follows:

In Thousands	Increase (Decrease)			
	From Prior Year	2017	2016	
Avionics & Controls	(0.3)%	\$281,443	\$282,300	
Sensors & Systems	4.7%	257,522	245,966	
Advanced Materials	(4.9)%	126,494	132,979	
Total Gross Profit		\$665,459	\$661,245	
Avionics & Controls	0.7%	33.5	32.8	%
Sensors & Systems	0.2%	35.5	35.3	%
Advanced Materials	(1.4)%	29.1	30.5	%
Gross Margin Percentage		33.2	33.2	%

Avionics & Controls segment gross margin was 33.5% and 32.8% for fiscal 2017 and 2016, respectively. Segment gross profit was \$281.4 million compared with \$282.3 million in the prior-year period. The \$1 million decrease in gross profit mainly reflected the following:

- \$16 million decrease due to sales volume/mix mainly due to lower sales of avionics systems for the T-6B
- Higher manufacturing expenses and other expenses of \$4 million reflecting a lower recovery of fixed overhead on decreased sales
- Partially offset by
- Integration and factory Kaikaku or layout expenses incurred in the prior year of \$6 million
- \$12 million favorable effect of change of foreign currency rates

Sensors & Systems segment gross margin was 35.5% and 35.3% for fiscal 2017 and 2016, respectively. Segment gross profit was \$257.5 million compared with \$246.0 million in the prior-year period. The \$12 million increase in Sensors & Systems segment gross profit mainly reflected the following:

- \$17 million increase in volume/mix mainly due to higher sales of advanced sensors and power systems
- \$2 million decrease in restructuring expense for advanced sensors operations incurred in the prior-year period
- Partially offset by
- \$6 million in higher manufacturing costs due to employee turnover and inefficient operations in mainly low cost countries
- \$1 million unfavorable effect of change in foreign currency exchange rates

Advanced Materials segment gross margin was 29.1% and 30.5% for fiscal 2017 and 2016, respectively. Segment gross profit was \$126.5 million compared with \$133.0 million in the prior-year period. The \$6 million decrease in Advanced Materials segment gross profit principally reflected the following:

- \$5 million decrease from sales mix principally due to the new long-term contract on engineered materials noted above and a \$2 million decrease from lower sales of combustible ordnance
- \$5 million increase in manufacturing expense mainly due to engineered materials elastomer manufacturing inefficiencies
- \$2 million unfavorable effect of change in foreign currency exchange rates
- Partially offset by

- A \$2 million in lower restructuring expenses incurred in the prior-year period

• A \$6 million increase from higher sales volume of flare countermeasures

Selling, general and administrative expenses (which include corporate expenses) totaled \$375.4 million, or 18.8% of sales, and \$395.3 million, or 19.8% of sales, for fiscal 2017 and 2016, respectively. The \$20 million decrease in selling, general and administrative expense mainly reflected the following:

• An \$8 million decrease in bad debt expense

• A \$7 million decrease in integration expense

• A \$7 million effect of change in foreign currency exchange rates

• Partially offset by a \$2 million increase in enterprise software license fees

28

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Research, development and engineering spending was \$103.0 million, or 5.1% of sales, for fiscal 2017 compared with \$95.9 million, or 4.8% of sales, for the prior-year period. The \$7.1 million increase in research, development and engineering principally reflected higher activity across all three segments including Embraer E2, Lockheed Martin C-130 and Embraer KC-390 developments.

Segment earnings (operating earnings excluding corporate expenses and other income or expense) for fiscal 2017 totaled \$264.8 million, or 13.2% of sales, compared with \$240.6 million, or 12.1% of sales, for fiscal 2016. Segment earnings by segment were as follows:

In Thousands	Increase (Decrease) From Prior Year	2017		2016	
Avionics & Controls	20.6%	\$94,468		\$78,356	
Sensors & Systems	9.9%	96,484		87,768	
Advanced Materials	(0.8)%	73,891		74,515	
Total Segment Earnings		\$264,843		\$240,639	
Avionics & Controls	2.1%	11.2	%	9.1	%
Sensors & Systems	0.7%	13.3	%	12.6	%
Advanced Materials	(0.1)%	17.0	%	17.1	%
Segment Earnings Percentage		13.2	%	12.1	%

Avionics & Controls segment earnings were \$94.5 million, or 11.2% of sales, for fiscal 2017 and \$78.4 million, or 9.1% of sales, for fiscal 2016. The \$16 million increase in Avionics & Controls segment earnings mainly reflected the following:

- An \$8 million decrease in bad debt expense
- An \$8 million decrease in integration expense
- A \$2 million favorable effect of foreign currency rates
- Partially offset by

- A \$1 million decrease in gross profit
- A \$2 million increase in research, development and engineering expenses

Sensors & Systems segment earnings were \$96.5 million, or 13.3% of sales, for fiscal 2017 compared with \$87.8 million, or 12.6% of sales, for fiscal 2016. The \$9 million increase in Sensors & Systems segment earnings principally reflected the following:

- A \$12 million increase in gross profit
- A \$2 million decrease in restructuring expense
- Partially offset by

- A \$2 million increase in research, development and engineering expenses
- A \$2 million increase in selling, general and administrative expense mainly due to information technologies expenses

Advanced Materials segment earnings were \$73.9 million, or 17.0% of sales, for fiscal 2017, compared with \$74.5 million, or 17.1% of sales, for fiscal 2016. The \$1 million decrease in Advanced Materials segment earnings mainly reflected the following:

- A \$6 million decrease in gross profit

- A \$5 million increase in selling, general and administrative expense and research, development and engineering
- Partially offset by
- A \$3 million additional insurance recovery from the incident at our countermeasure operation
- A \$2 million decrease in restructuring expenses incurred in the prior-year period
- A \$6 million favorable effect of changes in foreign currency exchange rates

Interest expense was \$30.2 million during fiscal 2017, compared with \$30.1 million in the prior-year period.

The income tax rates were 23.6% and 16.0% for fiscal 2017 and 2016, respectively. The income tax rate in the current year was higher primarily due to U.K. limitations on interest expense deductions. Both years benefited from various tax credits, certain foreign interest deductions, and lower income tax rates on permanently invested foreign sourced income. The income tax rate in fiscal 2017 and 2016 principally reflected the following discrete income tax items:

During fiscal 2017, we recognized \$7.0 million of discrete tax benefits primarily related to a reduction of the income tax rate in France for fiscal year 2020 and beyond and the early adoption of the accounting standard update for employee share-based payment awards

In fiscal 2016, we recognized approximately \$3.5 million of discrete tax benefits principally related to the enactment of tax laws reducing the U.K. statutory income tax rate

We expect the income tax rate to be approximately 27% to 28% in fiscal 2018.

If enacted, recent proposals to lower the U.S. corporate income tax rate from the current Federal statutory income tax rate of 35% would require us to reduce our net deferred tax assets primarily related to our U.S. post-retirement benefit plan, resulting in a one-time, non-cash increase in income tax expense in the year of enactment. In addition, we would be required to pay one-time cash taxes on the undistributed earnings of our foreign subsidiaries. In subsequent years, our income tax expense could be materially reduced.

It is reasonably possible that within the next twelve months approximately \$1.4 million of tax benefits that are currently unrecognized could be recognized as a result of settlement of examinations and/or expiration of a statute of limitations.

New orders for fiscal 2017 were \$2.0 billion compared with \$2.1 billion for fiscal 2016. Backlog was \$1.3 billion at September 29, 2017, and September 30, 2016. Approximately \$440 million is scheduled to be delivered after fiscal 2018. Backlog is subject to cancellation until delivery.

Fiscal 2016 Compared with Fiscal 2015

Sales for fiscal 2016 decreased by \$10.2 million, or 0.5%, from fiscal 2015. Fiscal 2015 benefited from a strong October 2014. The last Friday in October 2014 was our previous year-end, and in changing our year-end from the last Friday in October to the last Friday in September, October 2014 was included in our recast first fiscal quarter of 2015. Fiscal 2016 consisted of 52 weeks and fiscal 2015 consisted of 53 weeks.

In Thousands	Increase (Decrease)		2015 (Unaudited)
	From Prior Year	2016	
			(Recast)
Avionics & Controls	4.2%	\$860,494	\$826,044
Sensors & Systems	(2.6)%	696,032	714,965
Advanced Materials	(5.6)%	436,105	461,784
Total Net Sales		\$1,992,631	\$2,002,793

The \$34 million increase in Avionics & Controls sales over fiscal 2015 mainly reflected acquired sales from the acquisition of the advanced displays business based in Belgium, which we refer to as EAD, of \$52 million, in addition to organic EAD sales growth of \$21 million, partially offset by the following:

Lower sales volumes of \$10 million

Lower sales volumes of avionics systems of \$21 million for certain commercial and defense programs, including an \$8 million decrease on the T-6B military trainer program for the U.S. Navy nearing completion

Lower sales volumes of communications and control systems of \$11 million due to decreased sales of headset communication devices for defense applications of \$17 million, mainly due to the shipment of delinquent orders in fiscal 2015 and a strong October 2014, partially offset by increased sales volumes of secure communications of \$5 million

Partially offset by

- Higher sales volumes of displays of \$21 million mainly due to higher demand for defense applications and a contract termination for convenience fee of \$4 million

Higher sales volumes of interface technologies for gaming applications of \$1 million

Unfavorable effect of changes in foreign currency exchange rates of \$7 million

The \$19 million decrease in Sensors & Systems sales over the prior-year period principally reflected the following:

Decreased sales volumes of \$11 million primarily driven by

Lower sales of power systems of \$8 million due to shipment delays relating to export control compliance requirements, partially offset by higher sales of ground fault indicators due to an FAA requirement

30

Lower sales volumes of connection technologies systems of \$4 million due to lower demand for oil and gas and defense applications

Partially offset by higher sales of advanced sensors of \$1 million due to a price increase

Unfavorable effect of foreign currency exchange rates of \$8 million

The \$26 million decrease in Advanced Materials sales over the prior-year period mainly reflected the following:

Decreased sales volumes of defense technologies of \$18 million mainly due to an energetic incident that occurred at one of our countermeasure operations in May 2016 that halted operations at the facility through early September 2016 for investigation of the incident, repairs to the building and equipment, and implementation of process and facility improvements.

Decreased sales volumes of engineered materials for metal insulation applications of \$13 million due to delayed orders for commercial aviation and lower demand for oil and gas applications

Partially offset by

Higher sales of engineered materials mainly from a defense program of \$7 million

Higher sales mainly of combustible ordnance of \$8 million

Unfavorable effect of foreign currency exchange rates of \$10 million

Foreign sales originating from non-U.S. locations, together with export sales by domestic operations, totaled \$1.2 billion and \$1.1 billion for fiscal 2016 and for the eleven-month period ended October 2, 2015, respectively, and accounted for 57.9% and 60.2% of our sales in fiscal 2016 and for the eleven-month period ended October 2, 2015, respectively.

Overall, gross margin was 33.2% and 33.9% for fiscal 2016 and 2015, respectively. Gross profit was \$661.2 million and \$679.4 million for fiscal 2016 and 2015, respectively. Gross profit was impacted by \$3.8 million and \$6.5 million in restructuring expense in fiscal 2016 and 2015, respectively. Gross profit and gross margin percentage by segment were as follows:

In Thousands	Increase (Decrease)					
	From Prior Year	2016	2015			
			(Unaudited)			
			(Recast)			
Avionics & Controls	1.1%	\$282,300	\$ 279,148			
Sensors & Systems	(2.0)%	245,966	251,060			
Advanced Materials	(10.9)%	132,979	149,180			
Total Gross Profit		\$661,245	\$ 679,388			
Avionics & Controls	(1.0)%	32.8	%	33.8	%	
Sensors & Systems	0.2%	35.3	%	35.1	%	
Advanced Materials	(1.8)%	30.5	%	32.3	%	
Gross Margin Percentage		33.2	%	33.9	%	

Avionics & Controls segment gross margin was 32.8% and 33.8% for fiscal 2016 and 2015, respectively. Segment gross profit was \$282.3 million compared with \$279.1 million in the prior-year period. The \$3 million increase in gross profit mainly reflected the following:

\$21 million in acquired gross profit from the EAD acquisition

\$7 million in an EAD fair value of inventory adjustment recorded in the prior-year period

Substantially offset by

- A \$14 million decrease due to sales volume/mix mainly due to lower sales of control and communication systems
- An \$8 million decrease due to higher manufacturing costs primarily at control and communication systems operations
- A \$3 million decrease due to an unfavorable effect of changes in foreign currency exchange rates, EAD integration expense, partially offset by a favorable estimated cost at completion adjustment

Sensors & Systems segment gross margin was 35.3% and 35.1% for fiscal 2016 and 2015, respectively. Segment gross profit was \$246.0 million compared with \$251.1 million in the prior-year period. The \$5 million decrease in Sensors & Systems segment gross profit mainly reflected the following:

- A \$2 million decrease in volume/mix mainly due to lower sales of connection technologies and power systems

31

• A \$7 million increase in manufacturing costs mainly due to factory closures and transfers to a low-cost country
 Partially offset by

• A \$3 million decrease in restructuring expense for advanced sensors and connection technologies operations

• A \$1 million favorable effect of change in foreign currency exchange rates

Advanced Materials segment gross margin was 30.5% and 32.3% for fiscal 2016 and 2015, respectively. Segment gross profit was \$133.0 million compared with \$149.2 million in the prior-year period. The \$16 million decrease in Advanced Materials segment gross profit principally reflected the following:

• A \$9 million increase in manufacturing expense mainly due to engineered materials manufacturing inefficiencies and lower sales volumes of metallic insulation mainly for commercial aviation and oil & gas applications

• A \$7 million increase in expense due to an energetic incident at one of our countermeasure operations described further above

Selling, general and administrative expenses (which include corporate expenses) totaled \$395.3 million, or 19.8% of sales, and \$384.2 million, or 19.2% of sales, for fiscal 2016 and 2015, respectively. The \$11 million increase in selling, general and administrative expense mainly reflected the following:

• An \$11 million increase due to incremental EAD expenses

• An \$8 million increase in bad debt expense

• A \$5 million increase in stock option expense, severance and segment pension expense

Partially offset by

• A \$9 million decrease in corporate expense due to lower professional fees primarily for compliance and a \$3 million pension settlement recorded in fiscal 2015

• A \$2 million favorable effect of foreign currency rates

• A \$2 million write-off of fixed assets due to an avionics systems program realignment in the prior year

Research, development and engineering spending was \$95.9 million, or 4.8% of sales, for fiscal 2016 compared with \$100.4 million, or 5.0% of sales, for the prior-year period. The \$4.5 million decrease in research, development and engineering principally reflected the following:

• Decreased spending of \$11 million mainly for Avionics & Controls and Sensors & Systems developments

Partially offset by incremental expense from EAD of \$7 million

Total restructuring expenses were \$8.7 million, or 0.4% of sales, in fiscal 2016, of which \$4.9 million is reported separately as restructuring expenses and \$3.8 million is included in cost of goods sold. Total restructuring expenses were \$14.6 million, or 0.7% of sales, in fiscal 2015, of which \$8.1 million is reported separately as restructuring expenses and \$6.5 million is included in cost of goods sold.

Segment earnings (operating earnings excluding corporate expenses and other income or expense) for fiscal 2016 totaled \$240.6 million, or 12.1% of sales, compared with \$268.8 million, or 13.4% of sales, for fiscal 2015. Segment earnings by segment were as follows:

In Thousands	Increase (Decrease)		2015 (Unaudited) (Recast)
	From Prior Year	2016	
Avionics & Controls	(15.9)%	\$78,356	\$93,225
Sensors & Systems	4.2%	87,768	84,235
Advanced Materials	(18.4)%	74,515	91,334
Total Segment Earnings		\$240,639	\$268,794

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Avionics & Controls	(2.2)%	9.1	%	11.3	%
Sensors & Systems	0.8%	12.6	%	11.8	%
Advanced Materials	(2.7)%	17.1	%	19.8	%
Segment Earnings Percentage		12.1	%	13.4	%

Avionics & Controls segment earnings were \$78.4 million, or 9.1% of sales, for fiscal 2016 and \$93.2 million, or 11.3% of sales, for fiscal 2015. The \$15 million decrease in Avionics & Controls segment earnings mainly reflected the following:

- EAD incremental operating expenses of \$18 million

- An \$8 million increase in bad debt expense

- A \$4 million unfavorable effect of foreign currency rates and increase in severance

- Partially offset by

- A \$3 million increase in gross profit

- A \$10 million decrease in research, development and engineering for avionics systems and control and communication systems, and a \$2 million write-off of fixed assets due to an avionics systems program realignment in the prior year

Sensors & Systems segment earnings were \$87.8 million, or 12.6% of sales, for fiscal 2016 compared with \$84.2 million, or 11.8% of sales, for fiscal 2015. The \$4 million increase in Sensors & Systems segment earnings principally reflected the following:

- An \$8 million favorable effect of changes in foreign currency exchange rates

- A \$2 million decrease in restructuring expense

- A \$2 million decrease in research, development and engineering

- Partially offset by

- A \$5 million decrease in gross profit

- A \$3 million increase in selling, general and administrative expense mainly due to a curtailment of a post-retirement medical benefit plan in the prior-year

Advanced Materials segment earnings were \$74.5 million, or 17.1% of sales, for fiscal 2016, compared with \$91.3 million, or 19.8% of sales, for fiscal 2015. The \$17 million decrease in Advanced Materials segment earnings mainly reflected the following:

- A \$16 million decrease in gross profit

- A \$3 million increase in selling, general and administrative expense

- A \$3 million unfavorable effect of changes in foreign currency exchange rates

- Partially offset by a \$5 million insurance recovery from the incident at our countermeasure operation

Interest expense was \$30.1 million during fiscal 2016, compared with \$33.1 million in the prior-year period. The decrease in interest expense reflected lower interest from our refinancing in April 2015 of our \$250 million 7% Senior Notes with our €330 million 3.625% Senior Notes. Additionally, in fiscal 2015 we recorded a \$2.4 million reduction in interest expense upon the lapse of a statutory period related to a liability for a non-income tax position of an acquired company.

The income tax rates were 16.0% and 17.3% for fiscal 2016 and 2015, respectively. The decrease in the income tax rate principally reflected the following:

- During fiscal 2016, we recognized \$1.4 million of additional tax benefits primarily due to the release of reserves upon the settlement of an audit

- Both years benefited from various tax credits, certain foreign interest deductions, and lower income tax rates on permanently invested foreign sourced income

Liquidity and Capital Resources

Working Capital and Statement of Cash Flows

Cash and cash equivalents at the end of fiscal 2017 totaled \$307.8 million, an increase of \$49.3 million from September 30, 2016. Net working capital increased to \$887.0 million at the end of fiscal 2016 from \$777.3 million at the end of the prior year.

Cash flows from operating activities were \$193.5 million and \$167.2 million in fiscal 2017 and 2016, respectively. The increase principally reflected higher net earnings and cash receipts from the sale of products. Sources and uses of cash flows from operating activities principally consisted of cash received from the sale of products and cash payments for material, labor and operating expense.

Cash flows used by investing activities were \$57.4 million and \$65.9 million in fiscal 2017 and 2016, respectively. Cash flows used by investing activities in fiscal 2017 primarily reflected capital expenditures of \$58.0 million. Cash flows used by investing activities in fiscal 2016 primarily reflected capital expenditures of \$68.5 million, partially offset by proceeds from the

sale of a discontinued operation of \$3.7 million. Capital expenditures in fiscal 2016 included the purchase of a building for our EAD operation.

Cash flows used by financing activities were \$94.4 million and \$29.4 million in fiscal 2017 and 2016, respectively. Cash flows used by financing activities in fiscal 2017 primarily reflected repayment of long-term debt and credit facilities of \$126.4 million, partially offset by \$28.1 million from the issuance of common stock under our employee stock plans and \$5.0 million in proceeds from our credit facilities. Cash flows used by financing activities in fiscal 2016 primarily reflected repayment of long-term debt and credit facilities of \$62.4 million, \$18.7 million in shares repurchased, partially offset by \$6.1 million from the issuance of common stock under our employee stock plans and \$45.0 million in proceeds from our credit facilities.

Capital Expenditures

Net property, plant and equipment was \$348.6 million at September 29, 2017, compared with \$338.0 million at September 30, 2016. Capital expenditures for fiscal 2017 and 2016 were \$58.0 million and \$68.5 million, respectively (excluding acquisitions), and included facilities, machinery, equipment and enhancements to information technology systems. Capital expenditures are anticipated to approximate \$82.5 million for fiscal 2018. The increase in capital expenditures in fiscal 2018 mainly reflects expenditures to support new defense and nuclear programs. We will continue to support expansion through investments in infrastructure including machinery, equipment, and information systems.

Acquisitions

On January 31, 2015, we acquired the defense, aerospace and training display business, or EAD, of Belgium-based Barco N.V. (Barco) for €150 million, or approximately \$171 million, in cash before a working capital adjustment of approximately \$15 million. The EAD business develops and manufactures visualization solutions for a variety of demanding defense and commercial aerospace applications and is included in our Avionics & Controls segment.

Debt Financing

U.S. Credit Facility

On April 9, 2015, we amended the secured credit facility to extend the expiration to April 9, 2020, increase the revolving credit facility to \$500 million, and provide for a delayed-draw term loan facility of \$250 million. We recorded \$2.3 million in debt issuance costs. The credit facility is secured by substantially all the Company's assets and interest is based on standard inter-bank offering rates. The interest rate ranges from LIBOR plus 1.25% to LIBOR plus 2.00%, depending on the leverage ratios at the time the funds are drawn. At September 29, 2017, we had \$50.0 million outstanding under the secured credit facility at an interest rate of LIBOR plus 1.50%, which was 2.74%. An additional \$27.5 million of unsecured foreign currency credit facilities have been extended by foreign banks for a total of \$527.5 million available companywide. Available credit under the above credit facilities was \$461.6 million at fiscal 2017 year end, when reduced by outstanding borrowings of \$50.0 million and letters of credit of \$15.9 million.

U.S. Term Loan, due April 2020

On August 3, 2015, we borrowed \$250 million under the delayed-draw term loan provided for under the amended credit facility. The interest rate on this loan ranges from LIBOR plus 1.25% to LIBOR plus 2.00%, depending on the leverage ratios at the time the funds are drawn. At September 29, 2017, the interest rate was LIBOR plus 1.50%, which equaled 2.74%. The loan amortizes at 1.25% of the original principal balance quarterly through March 2020, with the remaining balance due in April 2020. At September 29, 2017, we had \$225.0 million outstanding on the U.S. Term Loan.

3.625% Senior Notes, due April 2023

In April 2015, we issued €330.0 million in 3.625% Senior Notes, due April 2023 (2023 Notes) requiring semi-annual interest payments in April and October of each year until maturity. The net proceeds from the sale of the notes, after deducting \$5.9 million of debt issuance costs, were \$350.8 million. The 2023 Notes are general unsecured senior obligations of the Company. The 2023 Notes are unconditionally guaranteed on a senior basis by the Company and certain subsidiaries of the Company that are guarantors under the Company's existing secured credit facility. The 2023 Notes are subject to redemption at the option of the Company at any time prior to April 15, 2018, at a price equal to 100% of the principal amount, plus any accrued interest to the date of redemption and a make-whole provision. We may also redeem up to 35% of the 2023 Notes before April 15, 2018, with the net cash proceeds from equity offerings. The 2023 Notes are also subject to redemption at the option of the Company, in whole or in part, on or after April 15, 2018, at redemption prices starting at 102.719% of the principal amount plus accrued interest during the period beginning April 15, 2018, and declining annually to 100% of principal and accrued interest on or after April 15, 2021. At September 29, 2017, we had \$389.9 million outstanding on the 2023 Notes.

In connection with the redemption of debt in fiscal 2015, we incurred an \$8.75 million redemption premium and wrote off \$2.7 million in unamortized debt issuance costs as a loss on extinguishment of debt.

We believe cash on hand, funds generated from operations and other available debt facilities are sufficient to fund operating cash requirements and capital expenditures through fiscal 2018. We believe we will have adequate access to capital markets to fund future acquisitions.

Share Repurchase Program

On June 19, 2014, our Board of Directors approved a share repurchase program and authorized the repurchase of up to \$200 million of outstanding shares of common stock. In March 2015 our Board of Directors authorized an additional \$200 million. Under the program, the Company is authorized to repurchase up to \$400 million of the outstanding shares of common stock from time to time, depending on market conditions, share price and other factors. In fiscal 2015 we repurchased 2,562,122 shares under this program at an average price paid per share of \$101.29, for an aggregate purchase price of \$259.5 million. In fiscal 2016 we repurchased 304,577 shares under this program at an average price paid per share of \$61.51, for an aggregate purchase price of \$18.7 million. There were no shares repurchased during fiscal 2017. Subsequent to September 29, 2017, we repurchased 37,500 shares of common stock for approximately \$2.6 million through November 16, 2017. There is \$88.9 million available for purchase under our share repurchase program after these recent purchases.

Permanent Investment of Undistributed Earnings of Foreign Subsidiaries

Our non-U.S. subsidiaries have \$300.4 million in cash and cash equivalents at September 29, 2017. Cash and cash equivalents at our U.S. parent and subsidiaries aggregated \$7.4 million at September 29, 2017, and cash flow from these operations and credit facilities are sufficient to fund working capital, capital expenditures, acquisitions and debt repayments of our domestic operations. We have available credit to our U.S. parent and subsidiaries of \$434.5 million under our U.S. secured credit facility. The earnings of our non-U.S. subsidiaries are considered to be indefinitely invested, and accordingly, no provision for federal income taxes has been made on accumulated earnings of foreign subsidiaries. The amount of the unrecognized deferred income tax liability for temporary differences related to investments in foreign subsidiaries is not practical to determine because of the complexities regarding the calculation of unremitted earnings and the potential for tax credits.

Government Refundable Advances

Government refundable advances consist of payments received from the Canadian government to assist in the research and development related to commercial aviation that is conducted at our Canadian operations, CMC Electronics, Inc. (CMC). These advances totaled \$45.5 million and \$45.0 million at September 29, 2017, and September 30, 2016, respectively. The repayment of the advances is based on year-over-year commercial aviation revenue growth at CMC beginning in 2014. Imputed interest on the advances was 2.5% at September 29, 2017.

Pension and Other Post-Retirement Benefit Obligations

Our pension plans principally include a U.S. pension plan maintained by Esterline, non-U.S. plans maintained by CMC, and other non-U.S. plans. Our principal post-retirement plans include non-U.S. plans maintained by CMC, which are non-contributory health care and life insurance plans.

We account for pension expense using the end of the fiscal year as our measurement date, and we make actuarially computed contributions to our pension plans as necessary to adequately fund benefits. Our funding policy is consistent with the minimum funding requirements of ERISA. In fiscal 2017 and 2016, operating cash flow included \$5.3 million and \$10.6 million, respectively, of cash funding to the non-U.S. pension plans maintained primarily by CMC. There is no funding requirement for fiscal 2018 for the U.S. pension plans maintained by Esterline. We expect pension funding requirements for the CMC pension plans and other non-U.S. pension plans to be approximately \$4.9 million in fiscal 2018. The rate of increase in future compensation levels is consistent with our historical experience and salary administration policies. The expected long-term rate of return on plan assets is based on

long-term target asset allocations of 70% equity and 30% fixed income. We periodically review allocations of plan assets by investment type and evaluate external sources of information regarding long-term historical returns and expected future returns for each investment type, and accordingly, believe a 3.25% to 8.25% assumed long-term rate of return on plan assets is appropriate for the pension plans. Current allocations are consistent with the long-term targets.

We made the following assumptions with respect to our Esterline pension obligation in fiscal 2017 and 2016:

	2017	2016
Principal assumptions as of fiscal year end:		
Discount rate	3.75%	3.60%
Rate of increase in future compensation levels	4.48%	4.28%
Assumed long-term rate of return on plan assets	7.00%	7.00%

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

We made the following assumptions with respect to our CMC pension obligation in fiscal 2017 and 2016:

	2017	2016
Principal assumptions as of fiscal year end:		
Discount rate	3.76%	3.22%
Rate of increase in future compensation levels	2.75%	2.75%
Assumed long-term rate of return on plan assets	5.19%	5.66%

We made the following assumptions with respect to our other non-U.S. pension obligations in fiscal 2017 and 2016:

	2017	2016
Principal assumptions as of fiscal year end:		
Discount rate	1.40 - 8.75%	0.90 - 7.75%
Rate of increase in future compensation levels	2.96 - 10.29%	2.96 - 10.13%
Assumed long-term rate of return on plan assets	3.25 - 8.25%	3.25 - 8.00%

We use a discount rate for expected returns that is a spot rate developed from a yield curve established from high-quality corporate bonds and matched to plan-specific projected benefit payments. Although future changes to the discount rate are unknown, had the discount rate increased or decreased by 25 basis points in fiscal 2017, pension liabilities in total would have decreased \$13.7 million or increased \$14.4 million, respectively. If all other assumptions are held constant, the estimated effect on fiscal 2017 pension expense from a hypothetical 25 basis points increase or decrease in both the discount rate and expected long-term rate of return on plan assets would not have a material effect on our pension expense.

We made the following assumptions with respect to our Esterline post-retirement obligation in fiscal 2017 and 2016:

	2017	2016
Principal assumptions as of fiscal year end:		
Discount rate	3.75%	3.60%
Initial weighted average health care trend rate	6.00%	6.00%
Ultimate weighted average health care trend rate	6.00%	6.00%

We made the following assumptions with respect to our CMC post-retirement obligation in fiscal 2017 and 2016:

	2017	2016
Principal assumptions as of fiscal year end:		
Discount rate	3.51%	3.16%
Initial weighted average health care trend rate	5.80%	6.00%
Ultimate weighted average health care trend rate	4.10%	4.20%

The assumed health care trend rate can have a significant impact on our post-retirement benefit obligations. Our health care trend rate was based on the experience of our plan and expectations for the future. A 100 basis points increase in the health care trend rate would increase our post-retirement benefit obligation by \$1.4 million at September 29, 2017. A 100 basis points decrease in the health care trend rate would decrease our post-retirement benefit obligation by \$1.2 million at September 29, 2017. Assuming all other assumptions are held constant, the estimated effect on fiscal 2017 post-retirement benefit expense from a hypothetical 100 basis points increase or decrease in the health care trend rate would not have a material effect on our post-retirement benefit expense.

Research and Development Expense

For the three years ended September 29, 2017, research and development expense averaged 5.0% of sales. We estimate that research and development expense in fiscal 2018 will be approximately 5.0% of sales for the full year.

Contractual Obligations

The following table summarizes our outstanding contractual obligations as of fiscal year end. Liabilities for income taxes were excluded from the table, as we are not able to make a reasonably reliable estimate of the amount and period of related future payments.

In Thousands	Total	Less than 1 year	1 3 years	4 5 years	After 5 years
Long-term debt ¹	\$854,520	\$23,374	\$281,075	\$24,587	\$525,484
Interest obligations	95,039	21,539	38,169	28,265	7,066
Operating lease obligations	51,807	13,382	18,528	10,876	9,021
Purchase obligations	666,071	642,422	22,555	1,094	-
Total contractual obligations	\$1,667,437	\$700,717	\$360,327	\$64,822	\$541,571

¹Includes \$73.0 million representing interest on capital lease obligations. Approximately 41% of our interest obligations are from variable interest rate obligations. We assumed an interest rate of 2.74% for all future periods.

Seasonality

The timing of our revenues is impacted by the purchasing patterns of our customers and, as a result, we do not generate revenues evenly throughout the year. Moreover, our first fiscal quarter, October through December, includes significant holiday vacation periods in both Europe and North America. This leads to decreased order and shipment activity; consequently, first quarter results are typically weaker than other quarters and not necessarily indicative of our performance in subsequent quarters. Effective fiscal 2016, we changed our fiscal year to the twelve months ended the last Friday of September to better align with the aerospace industry's business cycle.

Disclosures About Market Risk

Interest Rate Risks

Our debt includes fixed rate and variable rate obligations at September 29, 2017. Our ratio of fixed and variable rate to total obligations was 59% and 41%, respectively at September 29, 2017. We are not subject to interest rate risk on the fixed rate obligations. We are subject to interest rate risk on the U.S. Term Loan and U.S. credit facility. For long-term debt, the table below presents principal cash flows and the related weighted-average interest rates by contractual maturities.

A hypothetical 10% increase or decrease in average market rates would not have a material effect on our pretax income.

In Thousands	Long-Term Debt	
	Variable Rate	Principal Average

	Amount	Rates ¹
Maturing in:		
2018	\$12,500	*
2019	12,500	*
2020	250,000	*
2021	-	*
2022	-	*
2023 and thereafter	-	*
Total	\$275,000	
Fair value at 9/29/2017	\$275,000	

¹ Borrowings under the U.S. Term Loan bear interest at a rate equal to either: (a) the LIBOR rate plus 1.50% or (b) the “Base Rate” (defined as the higher of Wells Fargo Bank, National Association’s prime rate and the Federal funds rate plus 0.50%).

Currency Risks

We own significant operations in Canada, France and the United Kingdom. To the extent that sales are transacted in a foreign currency, we are subject to foreign currency fluctuation risk. Furthermore, we have assets denominated in foreign currencies that are not offset by liabilities in such foreign currencies. At September 29, 2017, we had the following monetary assets subject to foreign currency fluctuation risk: U.S. dollar-denominated backlog with customers whose functional currency is other than the U.S. dollar; U.S. dollar-denominated accounts receivable and payable; and certain forward contracts, which are

not accounted for as a cash flow hedge. The foreign exchange rate for the dollar relative to the euro decreased to 0.846 at September 29, 2017, from 0.890 at September 30, 2016; the dollar relative to the British pound decreased to 0.746 from 0.771; and the dollar relative to the Canadian dollar decreased to 1.247 from 1.313. Foreign currency transactions affecting monetary assets, forward contracts and backlog resulted in an \$11.9 million loss in fiscal 2017, a \$19.8 million loss in fiscal 2016, and a \$1.3 million gain in fiscal 2015.

Our policy is to hedge a portion of our forecasted transactions and a portion of our net monetary assets, including the embedded derivatives in our backlog, using forward exchange contracts. We do not enter into any forward contracts for trading purposes. At September 29, 2017, and September 30, 2016, the notional value of foreign currency forward contracts was \$411.0 million and \$451.3 million, respectively. The notional value of our foreign currency forward contracts include \$70 million related to the hedge of a portion of our net monetary assets, including the embedded derivatives in our backlog. The net fair value of our open foreign currency forward contracts was an \$11.3 million asset and an \$11.5 million liability at September 29, 2017, and September 30, 2016, respectively. If the U.S. dollar increased by a hypothetical 5%, the effect on the fair value of the foreign currency contracts at September 29, 2017, would be a decrease in the net liability of \$18.6 million. If the U.S. dollar decreased by a hypothetical 5%, the effect on the fair value of the foreign currency contracts would be an increase in net liability of \$21.6 million.

The following tables provide information about our significant derivative financial instruments, including foreign currency forward exchange agreements and certain firmly committed sales transactions denominated in currencies other than the functional currency at September 29, 2017, and September 30, 2016. The information about certain firmly committed sales contracts and derivative financial instruments is in U.S. dollar equivalents. For forward foreign currency exchange agreements, the following tables present the notional amounts at the current exchange rate and weighted-average contractual foreign currency exchange rates by contractual maturity dates.

Firmly Committed Sales Contracts

Operations with Foreign Functional Currency

At September 29, 2017

Principal Amount by Expected Maturity

In Thousands	Firmly Committed Sales Contracts in United States		
	Dollar		
	Canadian Dollar	Euro	British Pound
Fiscal Years			
2018	\$112,895	\$154,346	\$28,990
2019	28,432	39,222	3,565
2020	11,911	7,131	69
2021	10,912	6,599	-
2022 and thereafter	41,598	9,641	-
Total	\$205,748	\$216,939	\$32,624

Derivative Contracts

Operations with Foreign Functional Currency

At September 29, 2017

Notional Amount by Expected Maturity

Average Foreign Currency Exchange Rate (USD/Foreign Currency) ¹

Related Forward Contracts to Sell U.S. Dollar for Canadian Dollar

Fiscal Years	In Thousands, Except for Average Contract Rate	United States Dollar	
		Notional Amount	Avg. Contract Rate
2018		\$167,100	0.778
2019		64,500	0.772
Total		\$231,600	
	Fair value at 9/29/17		\$7,767

¹The Company has no derivative contracts maturing after fiscal 2019.

38

Derivative Contracts

Operations with Foreign Functional Currency

At September 29, 2017

Notional Amount by Expected Maturity

Average Foreign Currency Exchange Rate (USD/Foreign Currency) ¹

Related Forward Contracts to Sell U.S. Dollar for Euro

Fiscal Years	In Thousands, Except for Average Contract Rate	United States Dollar	
		Notional Amount	Avg. Contract Rate
2018		\$106,111	1.139
2019		19,880	1.214
Total		\$125,991	
	Fair value at 9/29/17	\$5,066	

¹The Company has no derivative contracts maturing after fiscal 2019.
Derivative Contracts

Operations with Foreign Functional Currency

At September 29, 2017

Notional Amount by Expected Maturity

Average Foreign Currency Exchange Rate (USD/Foreign Currency) ¹

Related Forward Contracts to Sell U.S. Dollar for British Pound

Fiscal Years	In Thousands, Except for Average Contract Rate	United States Dollar	
		Notional Amount	Avg. Contract Rate
2018		\$42,431	1.390
2019		6,924	1.376
Total		\$49,355	

Fair value at 9/29/17 \$(1,373)

¹The Company has no derivative contracts maturing after fiscal 2019.
Firmly Committed Sales Contracts

Operations with Foreign Functional Currency

At September 30, 2016

Principal Amount by Expected Maturity

In Thousands	Firmly Committed Sales Contracts in United States		
	Dollar	Canadian	British
Fiscal Years	Dollar	Euro	Pound
2017	\$122,010	\$119,826	\$35,984
2018	47,119	23,247	1,902
2019	21,195	4,397	-
2020	11,997	50	-
2021 and thereafter	17,920	301	-
Total	\$220,241	\$147,821	\$37,886

39

Derivative Contracts

Operations with Foreign Functional Currency

At September 30, 2016

Notional Amount by Expected Maturity

Average Foreign Currency Exchange Rate (USD/Foreign Currency) ¹

Related Forward Contracts to Sell U.S. Dollar for Canadian Dollar

Fiscal Years	In Thousands, Except for Average Contract Rate	United States Dollar	
		Notional Amount	Avg. Contract Rate
2017		\$ 185,100	0.756
2018		73,300	0.825
Total		\$258,400	
	Fair value at 9/30/16	\$(3,567)	

¹The Company had no derivative contracts maturing after fiscal 2018.

Derivative Contracts

Operations with Foreign Functional Currency

At September 30, 2016

Notional Amount by Expected Maturity

Average Foreign Currency Exchange Rate (USD/Foreign Currency) ¹

Related Forward Contracts to Sell U.S. Dollar for Euro

Fiscal Years	In Thousands, Except for Average Contract Rate	United States Dollar	
		Notional Amount	Avg. Contract Rate
2017		\$ 112,593	1.127
2018		7,180	1.144
Total		\$119,773	
	Fair value at 9/30/16	\$241	

¹The Company had no derivative contracts maturing after fiscal 2018.

Derivative Contracts

Operations with Foreign Functional Currency

At September 30, 2016

Notional Amount by Expected Maturity

Average Foreign Currency Exchange Rate (USD/Foreign Currency) ¹

Related Forward Contracts to Sell U.S. Dollar for British Pound

In Thousands, Except for Average Contract Rate	United States	
	Dollar	
Fiscal Years	Notional Amount	Avg. Contract Rate
2017	\$49,358	1.468
2018	20,400	1.502
2019	3,000	1.440
Total	\$72,758	
Fair value at 9/30/16	\$(8,131)	

¹The Company had no derivative contracts maturing after fiscal 2019.

Critical Accounting Policies

Our financial statements and accompanying notes are prepared in accordance with U.S. generally accepted accounting principles. Preparing financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Actual results may differ from estimates under different assumptions or conditions. These estimates and assumptions are affected by our application of accounting policies. Our critical accounting policies include revenue recognition, accounting for the allowance for doubtful accounts receivable, accounting for inventories, impairment of goodwill and intangible assets, impairment of long-lived assets, accounting for assets held for sale, accounting for legal contingencies, accounting for pension benefits, and accounting for income taxes.

Revenue Recognition

We recognize revenue when the title and risk of loss have passed to the customer, there is persuasive evidence of an agreement, delivery has occurred or services have been rendered, the price is determinable, and the collectability is reasonably assured. We recognize product revenues at the point of shipment or delivery in accordance with the terms of sale. Sales are net of returns and allowances. Returns and allowances are not significant because products are manufactured to customer specification and are covered by the terms of the product warranty.

Revenues and profits on fixed-price contracts with significant engineering as well as production requirements are recorded based on the achievement of contractual milestones and the ratio of total actual incurred costs to date to total estimated costs for each contract (cost-to-cost method). We review cost performance and estimates to complete on our ongoing contracts at least quarterly. The impact of revisions of profit estimates are recognized on a cumulative catch-up basis in the period in which the revisions are made. Provisions for anticipated losses on contracts are recorded in the period they become evident. When change orders have been approved by both the Company and the customer for both scope and price and realization is deemed probable, the original contract price is adjusted and revenues are recognized on contract performance (as determined by the achievement of contractual milestones and the cost-to-cost method). For partially approved change orders, costs attributable to unpriced change orders are treated as costs of the contract performance in the period the costs are incurred. Claims are also recognized as contract revenue when approved by both the Company and the customer, based on contract performance.

Allowance for Doubtful Accounts

We establish an allowance for doubtful accounts for losses expected to be incurred on accounts receivable balances. Judgment is required in estimation of the allowance and is based upon specific identification, collection history and creditworthiness of the debtor.

Inventories

We account for inventories on a first-in, first-out or average cost method of accounting at the lower of its cost or market. The determination of market requires judgment in estimating future demand, selling prices and cost of disposal. Judgment is required when determining inventory cost adjustments. Inventory cost adjustments are recorded when inventory is considered to be excess or obsolete based upon an analysis of actual on-hand quantities on a part-level basis relative to forecasted product demand and historical usage.

Impairment of Goodwill and Intangible Assets

Goodwill and indefinite-lived intangible assets are required to be tested for impairment at least annually. We are also required to test goodwill for impairment between annual tests if events occur or circumstances change that would more likely than not reduce our enterprise fair value below its book value. These events or circumstances could

include a significant change in the business climate, including a significant sustained decline in an entity's market value, legal factors, operating performance indicators, competition, sale or disposition of a significant portion of the business, or other factors.

Goodwill is tested for impairment in a two-step process. The first step (Step One) of the goodwill impairment test involves estimating the fair value of a reporting unit. Fair value (Fair Value) is defined as "the amount at which an asset (or liability) could be bought (or incurred) or sold (or settled) in a current transaction between willing parties, that is, other than in a forced liquidation sale." A reporting unit is generally defined at the operating segment level or at the component level one level below the operating segment, if said component constitutes a business. The Fair Value of a reporting unit is then compared to its carrying value, which is defined as the book basis of equity plus debt. In the event a reporting unit's carrying value exceeds its estimated Fair Value, evidence of potential impairment exists. In such a case, the second step (Step Two) of the impairment test is required, which involves allocating the Fair Value of the reporting unit to all of the assets and liabilities of that unit, with the excess of Fair Value over allocated net assets representing the Fair Value of goodwill. An impairment loss is measured as the amount by which the carrying value of the reporting unit's goodwill exceeds the estimated Fair Value of goodwill.

As we have grown through acquisitions, we have accumulated \$1.1 billion of goodwill and \$41.4 million of indefinite-lived intangible assets out of total assets of \$3.1 billion at September 29, 2017. The amount of any annual or interim impairment could be significant and could have a material adverse effect on our reported financial results for the period in which the charge is taken.

We performed our annual impairment review for fiscal 2017 as of July 1, 2017, and our Step One analysis indicates that no impairment of goodwill or other indefinite-lived assets exists at any of our reporting units. Our avionics systems reporting unit's margin in passing the Step One analysis was approximately 11%. It is possible, however, that as a result of events or circumstances, we could conclude at a later date that goodwill of \$240.2 million at avionics systems may be considered impaired. We also may be required to record an earnings charge or incur unanticipated expenses if, due to a change in strategy or other reasons, we determine the value of other assets has been impaired. These other assets include trade names of \$21.3 million and intangible assets of \$77.1 million.

The valuation of reporting units requires judgment in estimating future cash flows, discount rates and estimated product life cycles. In making these judgments, we evaluate the financial health of the business, including such factors as industry performance, changes in technology and operating cash flows.

We used available market data and a discounted cash flow analysis in completing our 2017 annual impairment test. We believe that our cash flow estimates are reasonable based upon the historical cash flows and future operating and strategic plans of our reporting units. In addition to cash flow estimates, our valuations are sensitive to the rate used to discount cash flows and future growth assumptions. The fair value of all our other reporting units exceeds its book value by greater than 33%. A 0.5% change in the discount rate used in the cash flow analysis would result in a change in the fair value of our other reporting units of approximately \$149.9 million. A 0.5% change in the growth rate assumed in the calculation of the terminal value of cash flows would result in a change in the fair value of our other reporting units by \$103.6 million. None of these changes would have resulted in any of our other reporting units being impaired.

Impairment of Long-Lived Assets

Long-lived assets that are to be disposed of are required to be reported at the lower of its carrying amount or fair value less cost to sell. An asset (other than goodwill and indefinite-lived intangible assets) is considered impaired when estimated future cash flows are less than the carrying amount of the asset. The first step (Step One) of an impairment test of long-lived assets is to determine the amount of future undiscounted cash flow of the long-lived asset. In the event the undiscounted future cash flow is less than the carrying amount of the long-lived asset, a second step is required (Step Two), and the long-lived asset is adjusted to its estimated fair value. Fair value is generally determined based upon estimated discounted future cash flows.

As we have grown through acquisitions, we have accumulated \$317.8 million of definite-lived intangible assets. The amount of any annual or interim impairment could be significant and could have a material adverse effect on our reported financial results for the period in which the charge is taken.

Assets Held for Sale

Assets held for sale are to be reported at the lower of its carrying amount or fair value less cost to sell. Judgment is required in estimating the sales price of assets held for sale and the time required to sell the assets. These estimates are based upon available market data and operating cash flows of the assets held for sale.

In fiscal 2014, the Company's Board of Directors approved a plan to sell certain non-core business units including Wallop Defence Systems, Ltd., a small manufacturing business and a small distribution business. As a result, we recorded an after-tax loss of \$2.9 million, \$8.4 million and \$31.2 million in fiscal 2017, 2016, and 2015, respectively, on assets held for sale in discontinued operations.

Contingencies

We are party to various lawsuits and claims, both as plaintiff and defendant, and have contingent liabilities arising from the conduct of business. We are covered by insurance for general liability, product liability, workers' compensation and certain environmental exposures, subject to certain deductible limits. We are self-insured for amounts less than our deductible and where no insurance is available. An estimated loss from a contingency should be accrued by a charge to income if it is probable that an asset has been impaired or a liability has been incurred and the amount of the loss can be reasonably estimated. Disclosure of a contingency is required if there is at least a reasonable possibility that a loss has been incurred. We evaluate, among other factors, the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of loss.

Pension and Other Post-Retirement Benefits

We account for pension expense using the end of the fiscal year as our measurement date. We select appropriate assumptions including discount rate, rate of increase in future compensation levels and assumed long-term rate of return on plan assets and

expected annual increases in costs of medical and other health care benefits in regard to our post-retirement benefit obligations. Our assumptions are based upon historical results, the current economic environment and reasonable expectations of future events. Actual results which vary from our assumptions are accumulated and amortized over future periods, and accordingly, are recognized in expense in these periods. Significant differences between our assumptions and actual experience or significant changes in assumptions could impact the pension costs and the pension obligation.

Income Taxes

The objectives of accounting for income taxes are to recognize the amount of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in our financial statements or tax returns. Judgment is required in assessing the future tax consequences of events that have been recognized in our financial statements or tax returns. Variations in the actual outcome of these future tax consequences could materially impact our financial position and results of operations.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We hereby incorporate by reference the information set forth under the section “Disclosures About Market Risk” under Item 7.

Item 8. Financial Statements and Supplementary Data

Consolidated Statement of Operations

In Thousands, Except Per Share Amounts

	Twelve Months Ended		2015	Eleven Months Ended 2015
	2017	2016	(Unaudited)	
			(Recast)	
Net Sales	\$2,002,195	\$1,992,631	\$2,002,793	\$1,774,449
Cost of Sales	1,336,736	1,331,386	1,323,405	1,185,056
	665,459	661,245	679,388	589,393
Expenses				
Selling, general & administrative	375,413	395,274	384,156	346,781
Research, development and engineering	103,024	95,939	100,426	91,491
Restructuring charges	-	4,873	8,143	6,639
Insurance recovery	(7,789)	(5,000)	-	-
Other income	-	-	(12,503)	(12,503)
Total Expenses	470,648	491,086	480,222	432,408
Operating Earnings from Continuing Operations	194,811	170,159	199,166	156,985
Interest Income	(527)	(367)	(632)	(578)
Interest Expense	30,208	30,091	33,114	30,090
Loss on Extinguishment of Debt	-	-	11,451	11,451
Earnings from Continuing Operations Before Income Taxes	165,130	140,435	155,233	116,022
Income Tax Expense	38,928	22,535	26,911	18,956
Earnings from Continuing Operations Including				
Noncontrolling Interests	126,202	117,900	128,322	97,066
Earnings Attributable to Noncontrolling Interests	(1,504)	(949)	(427)	(401)
Earnings from Continuing Operations Attributable to				
Esterline, Net of Tax	124,698	116,951	127,895	96,665
Loss from Discontinued Operations Attributable to				
Esterline, Net of Tax	(7,311)	(15,266)	(40,319)	(37,053)
Net Earnings Attributable to Esterline	\$117,387	\$101,685	\$87,576	\$59,612
Earnings (Loss) Per Share Attributable to Esterline - Basic:				
Continuing operations	\$4.19	\$3.97	\$4.16	\$3.15

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Discontinued operations	(0.25)	(0.52)	(1.31)	(1.21)
Earnings (Loss) Per Share - Basic	\$3.94		\$3.45		\$2.85		\$1.94	
Earnings (Loss) Per Share Attributable to Esterline - Diluted:								
Continuing operations	\$4.15		\$3.93		\$4.10		\$3.10	
Discontinued operations	(0.24)	(0.51)	(1.29)	(1.19)
Earnings (Loss) Per Share - Diluted	\$3.91		\$3.42		\$2.81		\$1.91	

See Notes to Consolidated Financial Statements.

Consolidated Statement of Comprehensive Income (Loss)

In Thousands

	Twelve Months Ended			Eleven Months Ended
	2017	2016	2015	2015
			(Unaudited)	
			(Recast)	
Net earnings	\$117,387	\$101,685	\$87,576	\$59,612
Change in Fair Value of Derivative Financial Instruments	18,016	18,394	(10,456)	(8,763)
Income Tax (Expense) Benefit	(4,969)	(4,959)	3,294	2,147
	13,047	13,435	(7,162)	(6,616)
Change in Pension and Post-Retirement Obligations	34,564	(16,622)	(20,199)	(9,499)
Income Tax (Expense) Benefit	(11,848)	6,029	7,246	3,703
	22,716	(10,593)	(12,953)	(5,796)
Foreign Currency Translation Adjustment	46,216	(42,871)	(175,222)	(164,839)
Comprehensive Income (Loss)	\$199,366	\$61,656	\$(107,761)	\$(117,639)

See Notes to Consolidated Financial Statements.

Consolidated Balance Sheet

In Thousands, Except Share and Per Share Amounts

As of September 29, 2017 and September 30, 2016	2017	2016
Assets		
Current Assets		
Cash and cash equivalents	\$307,826	\$258,520
Cash in escrow	-	1,125
Accounts receivable, net of allowances of \$16,035 and \$17,028	437,963	422,073
Inventories	482,701	450,206
Income tax refundable	12,814	5,183
Prepaid expenses	18,816	17,909
Other current assets	13,836	5,322
Current assets of businesses held for sale	6,501	15,450
Total Current Assets	1,280,457	1,175,788
Property, Plant and Equipment		
Land	32,728	28,152
Buildings	269,220	240,878
Machinery and equipment	560,767	526,760
	862,715	795,790
Accumulated depreciation	514,081	457,756
	348,634	338,034
Other Non-Current Assets		
Goodwill	1,053,573	1,024,667
Intangibles, net	359,166	393,035
Deferred income tax benefits	55,355	75,409
Other assets	19,804	13,698
Non-current assets of businesses held for sale	13,334	11,400
Total Assets	\$3,130,323	\$3,032,031

See Notes to Consolidated Financial Statements.

Consolidated Balance Sheet (continued)

In Thousands, Except Share and Per Share Amounts

As of September 29, 2017 and September 30, 2016	2017	2016
Liabilities and Shareholders' Equity		
Current Liabilities		
Accounts payable	\$ 133,101	\$ 121,816
Accrued liabilities	229,610	238,163
Current maturities of long-term debt	17,424	16,774
Federal and foreign income taxes	6,111	10,932
Current liabilities of businesses held for sale	7,184	10,813
Total Current Liabilities	393,430	398,498
Long-Term Liabilities		
Credit facilities	50,000	155,000
Long-term debt, net of current maturities	709,424	698,796
Deferred income tax liabilities	43,978	53,798
Pension and post-retirement obligations	66,981	92,520
Other liabilities	17,658	21,968
Non-current liabilities of businesses held for sale	1,724	320
Shareholders' Equity		
Common stock, par value \$.20 per share, authorized 60,000,000 shares,		
issued 33,117,473 and 32,564,252 shares	6,623	6,513
Additional paid-in capital	738,329	702,610
Treasury stock at cost, repurchased 3,135,927 and 3,135,927 shares	(308,514)	(308,514)
Retained earnings	1,667,047	1,548,805
Accumulated other comprehensive loss	(266,878)	(348,857)
Total Esterline shareholders' equity	1,836,607	1,600,557
Noncontrolling interests	10,521	10,574
Total Shareholders' Equity	1,847,128	1,611,131
Total Liabilities and Shareholders' Equity	\$3,130,323	\$3,032,031

See Notes to Consolidated Financial Statements.

Consolidated Statement of Cash Flows

In Thousands

	Twelve Months Ended			Eleven Months Ended
	2017	2016	2015	2015
			(Unaudited)	
			(Recast)	
Cash Flows Provided (Used) by Operating Activities				
Net earnings including noncontrolling interests	\$ 118,891	\$ 102,634	\$ 88,003	\$ 60,013
Adjustments to reconcile net earnings including				
noncontrolling interests to net cash provided (used)				
by operating activities:				
Depreciation and amortization	103,770	100,258	103,357	90,575
Deferred income taxes	(2,907)	(22,166)	(18,165)	(17,976)
Share-based compensation	9,847	13,462	12,106	10,771
Gain on sale of discontinued operations	(793)	-	-	-
Gain on release of non-income tax liability	-	-	(15,656)	(15,656)
Loss on assets held for sale	2,906	8,448	30,792	31,154
Working capital changes, net of effect of acquisitions:				
Accounts receivable	(9,561)	(44,759)	(13,757)	10,188
Inventories	(18,429)	551	5,189	(7,746)
Prepaid expenses	(337)	4,875	(2,965)	(4,268)
Other current assets	1,108	373	(2,068)	(3,567)
Accounts payable	6,285	1,445	6,749	(10,476)
Accrued liabilities	(17,541)	(7,876)	18,894	10,880
Federal and foreign income taxes	(12,180)	14,878	(21,027)	(12,821)
Other liabilities	4,974	(3,639)	7,964	8,994
Other, net	7,428	(1,326)	(5,750)	(5,770)
	193,461	167,158	193,666	144,295
Cash Flows Provided (Used) by Investing Activities				
Purchase of capital assets	(58,040)	(68,472)	(55,407)	(49,341)
Escrow deposit	-	(1,125)	-	-
Proceeds from sale of discontinued operations	600	3,654	30,156	30,156
Proceeds from sale of capital assets	-	-	1,592	1,592
Acquisition of business, net of cash acquired	-	-	(155,975)	(155,975)
	(57,440)	(65,943)	(179,634)	(173,568)

Consolidated Statement of Cash Flows (continued)

In Thousands

	Twelve Months Ended			Eleven Months Ended
	2017	2016	2015	2015
			(Unaudited)	
			(Recast)	
Cash Flows Provided (Used) by Financing Activities				
Proceeds provided by stock issuance under employee				
stock plans	28,116	6,139	16,573	14,063
Withholding taxes on restricted stock units vested	(1,150)	-	-	-
Excess tax benefits from share-based compensation	-	567	2,613	1,973
Shares repurchased	-	(18,734)	(269,257)	(259,518)
Repayment of long-term credit facilities	(110,000)	(50,000)	(415,000)	(405,000)
Repayment of long-term debt	(16,392)	(12,360)	(418,999)	(416,827)
Proceeds from long-term credit facilities	5,000	45,000	465,000	465,000
Proceeds from issuance of long-term debt	-	-	606,532	606,532
Proceeds from government assistance	-	-	3,083	3,007
Debt and other issuance costs	-	-	(8,263)	(8,263)
	(94,426)	(29,388)	(17,718)	967
Effect of Foreign Exchange Rates on Cash and Cash				
Equivalents				
Equivalents	7,711	(4,662)	(18,210)	(18,483)
Net Increase (Decrease) in Cash and Cash Equivalents	49,306	67,165	(21,896)	(46,789)
Cash and Cash Equivalents - Beginning of Year	258,520	191,355	213,251	238,144
Cash and Cash Equivalents - End of Year	\$307,826	\$258,520	\$191,355	\$191,355
Supplemental Cash Flow Information:				
Cash paid for interest	\$27,441	\$27,679	\$28,075	\$26,638
Cash paid for taxes	51,078	24,803	43,543	34,550
Supplemental Non-cash Investing and Financing Activities:				
Capital asset and lease obligation additions	\$4,010	\$11,260	\$-	\$-

See Notes to Consolidated Financial Statements.

Consolidated Statement of Shareholders' Equity and

Noncontrolling Interests

In Thousands, Except Per Share Amounts

	Twelve Months Ended		Eleven Months Ended
	2017	2016	2015
Esterline Shareholders' Equity			
Common Stock, Par Value \$.20 Per Share			
Beginning of year	\$6,513	\$6,476	\$6,425
Shares issued under employee stock plans	110	37	51
End of year	6,623	6,513	6,476
Additional Paid-in Capital			
Beginning of year	702,610	682,479	655,723
Shares issued under employee stock plans	26,727	6,669	15,985
Cumulative effect of change in accounting principle	(855)	-	-
Share-based compensation expense	9,847	13,462	10,771
End of year	738,329	702,610	682,479
Treasury Stock			
Beginning of year	(308,514)	(289,780)	(30,262)
Shares repurchased	-	(18,734)	(259,518)
End of year	(308,514)	(308,514)	(289,780)
Retained Earnings			
Beginning of year	1,548,805	1,447,120	1,387,508
Cumulative effect of change in accounting principle	855	-	-
Net earnings	117,387	101,685	59,612
End of year	1,667,047	1,548,805	1,447,120
Accumulated Other Comprehensive Income (Loss)			
Beginning of year	(348,857)	(308,828)	(131,577)
Change in fair value of derivative financial instruments, net of			
tax (expense) benefit of \$(4,969), \$(4,959) and \$2,147	13,047	13,435	(6,616)
Change in pension and post-retirement obligations, net of			
tax (expense) benefit of \$(11,848), \$6,029 and \$3,703	22,716	(10,593)	(5,796)
Foreign currency translation adjustment	46,216	(42,871)	(164,839)
End of year	(266,878)	(348,857)	(308,828)
Total Esterline Shareholders' Equity	1,836,607	1,600,557	1,537,467
Noncontrolling Interests			
Beginning of year	10,574	10,324	10,183

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Net changes in equity attributable to noncontrolling interests	(53)	250	141
End of year	10,521		10,574	10,324
Total Shareholders' Equity	\$1,847,128		\$1,611,131	\$1,547,791

See Notes to Consolidated Financial Statements.

Notes to Consolidated Financial Statements

NOTE 1: Accounting Policies

Nature of Operations

Esterline Technologies Corporation (the Company) designs, manufactures and markets highly engineered products. The Company serves the aerospace and defense industry, primarily in the United States and Europe. The Company also serves the industrial/commercial and medical markets.

Principles of Consolidation and Basis of Presentation

The consolidated financial statements include the accounts of the Company and all subsidiaries. All significant intercompany accounts and transactions have been eliminated. Classifications have been changed for certain amounts in prior periods to conform with the current year's presentation.

On June 5, 2014, the Company's Board of Directors authorized a change in the Company's fiscal year end to the last Friday of September from the last Friday in October effective beginning with the year-ended on September 30, 2016. The Company reported its financial results for the 11-month transition period of November 1, 2014, through October 2, 2015, on the Transition Report on Form 10-K, and thereafter the Company will file an annual report for the twelve-month period ending the last Friday of September of each year, beginning with the twelve-month period ending September 30, 2016.

Management Estimates

To prepare financial statements in conformity with U.S. generally accepted accounting principles, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, 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.

Concentration of Risks

The Company's products are principally focused on the aerospace and defense industry, which includes military and commercial aircraft original equipment manufacturers and their suppliers, commercial airlines, and the United States and foreign governments. Sales directly to the U.S. government or indirectly through subcontractors to the U.S. government account for approximately 21% and 18% of sales in fiscal 2017 and 2016, respectively. In addition, approximately 40% of our sales in fiscal 2017 were from the commercial aerospace market. Accordingly, the Company's current and future financial performance is dependent on the economic condition of the aerospace and defense industry. The commercial aerospace and defense markets have historically been subject to cyclical downturns during periods of weak economic conditions or material changes arising from domestic or international events. Management believes that the Company's sales are balanced across its customer base, which includes not only aerospace and defense customers but also medical and industrial commercial customers.

Revenue Recognition

The Company recognizes revenue when the title and risk of loss have passed to the customer, there is persuasive evidence of an agreement, delivery has occurred or services have been rendered, the price is determinable, and the collectability is reasonably assured. The Company recognizes product revenues at the point of shipment or delivery in accordance with the terms of sale. Sales are net of returns and allowances. Returns and allowances are generally not

significant because products are manufactured to customer specification and are covered by the terms of the product warranty.

Revenues and profits on fixed-price contracts with significant engineering as well as production requirements are recorded based on the achievement of contractual milestones and the ratio of total actual incurred costs to date to total estimated costs for each contract (cost-to-cost method). Types of milestones include design review and prototype completion. The Company reviews cost performance and estimates to complete on its ongoing contracts at least quarterly. The impact of revisions of profit estimates are recognized on a cumulative catch-up basis in the period in which the revisions are made. Provisions for anticipated losses on contracts are recorded in the period they become evident. When change orders have been approved by both the company and the customer for both scope and price and realization is deemed probable, the original contract price is adjusted and revenues are recognized on contract performance (as determined by the achievement of contractual milestones and the cost-to-cost method). For partially approved change orders, costs attributable to unpriced change orders are treated as costs of the contract performance in the period the costs are incurred. Claims are also recognized as contract revenue when approved by both the Company and the customer, based on contract performance.

Research and Development

Expenditures for internally-funded research and development are expensed as incurred. Customer-funded research and development projects performed under contracts are accounted for as work-in-process as work is performed and recognized as cost of sales and sales under the proportional performance method. Research and development expenditures are net of government assistance and tax subsidies, which are not contingent upon paying income tax. In addition, government assistance for research

and development is recorded as a reduction of research and development expense when repayment royalties are contingent upon sales generated directly from the funded research and development. If reimbursement is not tied directly to sales generated from the funded research and development, the assistance is accounted for as a loan until the criteria for forgiveness have been met.

Financial Instruments

Fair Value of Financial Instruments

The Company's financial instruments consist primarily of cash and cash equivalents, accounts receivable, accounts payable, short-term borrowings, long-term debt, foreign currency forward contracts, and from time to time interest rate swap agreements. The carrying amounts of cash and cash equivalents, accounts receivable, and accounts payable approximate their respective fair values because of the short-term maturities or expected settlement dates of these instruments. The fair market value of the Company's long-term debt and short-term borrowings was estimated at \$794.9 million and \$870.5 million at the end of fiscal 2017 and 2016, respectively. These estimates were derived using discounted cash flows with interest rates and quoted market prices currently available to the Company for issuance of debt with similar terms and remaining maturities.

Foreign Currency Exchange Risk Management

The Company is subject to risks associated with fluctuations in foreign currency exchange rates from the sale of products in currencies other than its functional currency. Furthermore, the Company has assets denominated in foreign currencies that are not offset by liabilities in such foreign currencies. The Company has significant operations in Canada, France, and the United Kingdom, and accordingly, the Company may experience gains or losses due to foreign exchange fluctuations.

The Company's policy is to hedge a portion of its forecasted transactions and a portion of its net monetary assets including the embedded derivatives in its backlog using forward exchange contracts in general, with maturities up to 24 months. These forward contracts have been designated as cash flow hedges. The portion of the net gain or loss on a derivative instrument that is effective as a hedge is reported as a component of other comprehensive income in shareholders' equity and is reclassified into earnings in the same period during which the hedged transaction affects earnings. The remaining net gain or loss on the derivative in excess of the present value of the expected cash flows of the hedged transaction is recorded in earnings immediately. If a derivative does not qualify for hedge accounting, or a portion of the hedge is deemed ineffective, the change in fair value is recorded in earnings. The amount of hedge ineffectiveness has not been material in any of the three fiscal periods ended September 29, 2017. At September 29, 2017, and September 30, 2016, the notional value of foreign currency forward contracts accounted for as a cash flow hedge was \$292.1 million and \$308.2 million, respectively. The notional value of the Company's foreign currency forward contracts include \$70 million related to the hedge of a portion of its net monetary assets including the embedded derivatives in our backlog at both September 29, 2017, and September 30, 2016, respectively. The fair value of these contracts was an asset of \$13.5 million and a liability of \$4.9 million at September 29, 2017, and September 30, 2016, respectively. The Company does not enter into any forward contracts for trading purposes.

In April 2015 the Company issued €330.0 million in 3.625% Senior Notes due April 2023 (2023 Notes) and requiring semi-annual interest payments in April and October each year until maturity. The Company designated the 2023 Notes and accrued interest as a hedge of the investment in certain foreign business units. The foreign currency gain or loss that is effective as a hedge is reported as a component of other comprehensive income (loss) in shareholders' equity. To the extent that this hedge is ineffective, the foreign currency gain or loss is recorded in earnings. There was no ineffectiveness since inception of the hedge.

Depending on the interest rate environment, the Company may enter into interest rate swap agreements to convert the variable interest rates on notes payable to fixed interest rates.

Foreign Currency Translation

Foreign currency assets and liabilities are translated into their U.S. dollar equivalents based on year-end exchange rates. Revenue and expense accounts are translated at average exchange rates. Aggregate exchange gains and losses arising from the translation of foreign assets and liabilities are included in shareholders' equity as a component of comprehensive income. Accumulated loss on foreign currency translation adjustment was \$222.6 million, \$268.8 million, and \$226.0 million as of the fiscal year ended September 29, 2017, September 30, 2016, and October 2, 2015, respectively.

Foreign Currency Transaction Gains and Losses

Foreign currency transaction gains and losses are included in results of operations and are primarily the result of revaluing assets and liabilities denominated in a currency other than the functional currency, the impact of changes in exchange rates, gains and losses on forward exchange contracts, and the change in value of foreign currency embedded derivatives in backlog. These foreign currency transactions resulted in an \$11.9 million loss in fiscal 2017, a \$19.8 million loss in fiscal 2016, and a \$1.3 million gain in fiscal 2015.

Cash Equivalents

Cash equivalents consist of highly liquid investments with original maturities of three months or less at the date of purchase. Fair value of cash equivalents approximates carrying value.

Accounts Receivable

Accounts receivable are recorded at the net invoice price for sales billed to customers. Accounts receivable are considered past due when outstanding more than normal trade terms allow. An allowance for doubtful accounts is established when losses are expected to be incurred. Accounts receivable are written off to the allowance for doubtful accounts when the balance is considered to be uncollectible.

Inventories

Inventories are stated at the lower of cost or market using the first-in, first-out (FIFO) or average cost method. Inventory cost includes material, labor and factory overhead. The Company defers pre-production engineering costs as work-in-process inventory in connection with long-term supply arrangements that include contractual guarantees for reimbursement from the customer. Inventory cost adjustments are recorded when inventory is considered to be excess or obsolete based upon an analysis of actual on-hand quantities on a part level basis to forecasted product demand and historical usage.

Property, Plant and Equipment, and Depreciation

Property, plant and equipment is carried at cost and includes expenditures for major improvements. Depreciation is generally provided on the straight-line method based upon estimated useful lives ranging from 15 to 30 years for buildings and 3 to 10 years for machinery and equipment. Depreciation expense was \$58.2 million, \$49.5 million, and \$50.7 million for fiscal 2017, 2016, and 2015, respectively. Depreciation expense included in discontinued operations was \$0.7 million in fiscal 2015. Assets under capital leases were \$50.5 million, \$48.2 million, and \$40.7 million for fiscal 2017, 2016, and 2015, respectively. Amortization expense of assets accounted for as capital leases is included with depreciation expense. The fair value of liabilities related to the retirement of property is recorded when there is a legal or contractual obligation to incur asset retirement costs and the costs can be estimated. The Company records the asset retirement cost by increasing the carrying cost of the underlying property by the amount of the asset retirement obligation. The asset retirement cost is depreciated over the estimated useful life of the underlying property.

Debt Issuance Costs

Costs incurred to issue debt are deferred and amortized as interest expense over the term of the related debt using a method that approximates the effective interest method.

Long-lived Asset Impairments

The carrying amount of long-lived assets is reviewed periodically for impairment. An asset (other than goodwill and indefinite-lived intangible assets) is considered impaired when estimated future undiscounted cash flows are less than the carrying amount of the asset. In the event the carrying amount of such asset is not deemed recoverable, the asset is adjusted to its estimated fair value. Fair value is generally determined based upon estimated discounted future cash flows.

Assets of Business Held for Sale

Assets held for sale are to be reported at lower of its carrying amount or fair value less cost to sell. Judgment is required in estimating the sales price of assets held for sale and the time required to sell the assets. These estimates are based upon available market data and operating cash flows of the assets held for sale.

Contingencies

The Company is party to various lawsuits and claims, both as plaintiff and defendant, and has contingent liabilities arising from the conduct of business. The Company is covered by insurance for general liability, product liability, workers' compensation and certain environmental exposures, subject to certain deductible limits. The Company is self-insured for amounts less than our deductible and where no insurance is available. An estimated loss from a contingency should be accrued by a charge to income if it is probable that an asset has been impaired or a liability has been incurred and the amount of the loss can be reasonably estimated. The Company evaluates, among other factors, the degree of probability of an unfavorable outcome and the ability to make a reasonable estimate of the amount of loss.

Goodwill and Intangibles

Goodwill is not amortized, but is tested for impairment at least annually or when circumstances require. A reporting unit is generally defined at the operating segment level or at the component level one level below the operating segment, if said component constitutes a business. Goodwill is allocated to reporting units based upon the purchase price of the acquired unit, the valuation of acquired tangible and intangible assets, and liabilities assumed. When a reporting unit's carrying value exceeds its estimated fair value, an impairment test is required. This test involves allocating the fair value of the reporting unit to all of the assets and liabilities of that unit, with the excess of fair value over allocated net assets representing the fair value of goodwill. An impairment loss is measured as the amount by which the carrying value of goodwill exceeds the estimated fair value of goodwill.

Intangible assets are amortized over their estimated period of benefit, ranging from 2 to 20 years. Amortization expense is reflected in selling, general and administrative expense on the Consolidated Statement of Operations. The Company periodically

evaluates the recoverability of intangible assets and takes into account events or circumstances that warrant revised estimates of useful lives or that indicate that an impairment exists.

Indefinite-lived intangible assets (other than goodwill) are tested annually for impairment or more frequently on an interim basis if circumstances require.

Environmental

Environmental exposures are provided for at the time they are known to exist or are considered probable and reasonably estimable. No provision has been recorded for environmental remediation costs which could result from changes in laws or other circumstances currently not known by the Company. Costs provided for future expenditures on environmental remediation are not discounted to present value.

Pension Plan and Post-Retirement Benefit Plan Obligations

The Company accounts for pension expense using the end of the fiscal year as its measurement date. Management selects appropriate assumptions including discount rate, rate of increase in future compensation levels and assumed long-term rate of return on plan assets and expected annual increases in costs of medical and other health care benefits in regard to the Company's post-retirement benefit obligations. These assumptions are based upon historical results, the current economic environment and reasonable expectations of future events. Actual results which vary from assumptions are accumulated and amortized over future periods, and accordingly, are recognized in expense in these periods. Significant differences between our assumptions and actual experience or significant changes in assumptions could impact the pension costs and the pension obligation.

Legal Expenses

The Company recognizes legal costs related to loss contingencies when the expense is incurred.

Share-Based Compensation

The Company measures the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award.

Product Warranties

Estimated product warranty expenses are recorded when the covered products are shipped to customers and recognized as revenue. Product warranty expense is estimated based upon the terms of the warranty program.

Income Taxes

The Company recognizes the amount of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in our financial statements or tax returns.

Earnings Per Share

Basic earnings per share is computed on the basis of the weighted average number of common shares outstanding during the year. Diluted earnings per share also includes the dilutive effect of stock options and restricted stock units. Common shares issuable from stock options that are excluded from the calculation of diluted earnings per share because they were anti-dilutive were 637,800, 602,900, and 409,050 for fiscal 2017, 2016, and 2015, respectively. The weighted average number of shares outstanding used to compute basic earnings per share was

29,767,000, 29,490,000, and 30,729,000 for fiscal 2017, 2016, and 2015, respectively. The weighted average number of shares outstanding used to compute diluted earnings per share was 30,003,000, 29,764,000, and 31,215,000 for fiscal 2017, 2016, and 2015, respectively.

Recent Accounting Pronouncements

In March 2017 the Financial Accounting Standards Board (FASB) issued new guidance on the presentation of the net periodic cost of postretirement benefit programs. The new standard requires sponsors of defined benefit postretirement plans to present the non-service cost components of net periodic benefit cost separate from the service cost component on the income statement. The new standard also requires that the non-service cost components of net periodic benefit cost no longer be capitalized within assets. The Company is evaluating the effect the standard will have on the Company's consolidated financial statements and related disclosures beyond the change in income statement presentation. This new standard is effective for the Company in fiscal year 2019, with early adoption permitted.

In January 2017 the FASB issued new guidance regarding the goodwill impairment test. The new guidance eliminates the Step 2 valuation test when evaluating goodwill for impairment. The new guidance requires that an entity performs its annual or interim goodwill test by comparing the fair value of the reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. The loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The Company is evaluating the effect the updated standard will have on the Company's consolidated financial statements and related disclosures. The guidance will be effective for the Company in fiscal year 2021, with early adoption permitted.

In October 2016 the FASB issued new guidance regarding income taxes. The new guidance will require the tax effects of intercompany transactions, other than sales of inventory, to be recognized currently, eliminating an exception under current Generally Accepted Accounting Principles (GAAP) in which the tax effects of intra-entity asset transfers are deferred until the transferred asset is sold to a third party or otherwise recovered through use. The Company is evaluating the effect the updated standard will have on the Company's consolidated financial statements and related disclosures. The guidance will be effective for the company in fiscal year 2019, with early adoption permitted.

In August 2016 the FASB issued new guidance addressing how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The Company is evaluating the effect the updated standard will have on the Company's consolidated financial statements and related disclosures. The guidance will be effective for the Company in fiscal year 2019, with early adoption permitted.

In June 2016 the FASB issued a new standard on the measurement of credit losses, which will impact the Company's measurement of trade receivables. The new standard replaces the current incurred loss model with a forward-looking expected loss model that is likely to result in earlier recognition of losses. The Company is evaluating the effect the updated standard will have on the Company's consolidated financial statements and related disclosures. The new standard is effective for the Company in 2021, with early adoption permitted, but not earlier than 2020.

In March 2016 the FASB issued new guidance simplifying certain aspects of accounting for share-based payments. The key provision of the new standard requires that excess tax benefits and shortfalls be recorded as income tax benefit or expense in the income statement, rather than in equity. The Company adopted the new guidance in fiscal 2017, which resulted in a \$2.3 million benefit to income tax expense and a favorable impact to operating cash flows of \$2.3 million. The Company has also elected to account for forfeitures as they occur, rather than estimate expected forfeitures, which resulted in a positive cumulative effect on retained earnings of \$0.9 million and a reduction of additional paid-in capital of \$0.9 million.

In February 2016 the FASB issued a new lease accounting standard, which provides revised guidance on accounting for lease arrangements by both lessors and lessees. The central requirement of the new standard is that lessees must recognize lease-related assets and liabilities for all leases with a term longer than 12 months. The Company is evaluating the effect the standard will have on the Company's consolidated financial statements and related disclosures. The new standard is effective for the Company in fiscal year 2020, with early adoption permitted.

In November 2015 the FASB issued new guidance requiring all deferred tax assets and liabilities to be classified as noncurrent on the balance sheet instead of separating those balances into current and noncurrent amounts. The new guidance is effective for the Company in fiscal year 2018, with early adoption permitted. The Company adopted this guidance prospectively on April 1, 2016, and reclassified the current portion of net deferred tax assets and liabilities to net noncurrent deferred tax assets and liabilities. No prior periods were retrospectively adjusted.

In May 2014 the FASB issued a comprehensive new revenue recognition standard that effectively replaces all current guidance on the topic. The guidance permits the use of either a retrospective or a cumulative effect transition method.

The Company has performed a review of the new guidance as compared to the Company's current accounting practices. The Company has reviewed a representative sample of contracts and other agreements with customers and evaluated the provisions contained within these agreements compared with the amended guidance.

This amended guidance is expected to change the revenue recognition practices for a number of revenue streams across our businesses; the most significant will be for certain U.S. government contracts and certain other contracts that meet one or more of the mandatory criteria, which will move revenue recognition from a “point-in-time” basis to an “over-time” basis. The on-going effect of recording revenue on an “over-time” basis is not expected to be materially different than under the historical guidance.

The amended guidance is also expected to change the recognition of certain development costs that are contractually guaranteed for reimbursement by our customers. Contractually guaranteed reimbursements for development efforts are currently recognized as the development activities are performed. Under the amended guidance, the contractually guaranteed reimbursement specific to the development effort will be deferred as a contract liability and recognized as revenue when future products are delivered to the customer in cases where the Company does not transfer all intellectual property rights related to the development effort to the customer or does not have an enforceable right to payment for performance completed to date. The costs associated with development effort under an arrangement with contractually guaranteed reimbursement will also be deferred, up to the amount reimbursed, and recognized through cost of goods sold as products are delivered to the customer. The on-going effect of deferring contractually guaranteed reimbursements and the related costs until products are delivered to the customer is not expected to be materially different than under the historical guidance.

The new standard also significantly enhances required disclosures regarding revenue and related assets and liabilities. The Company is in the process of implementing changes to business processes, systems and internal controls required to adopt the new accounting standard.

The updated standard becomes effective for the Company in the first quarter of fiscal 2019, with early adoption permitted. The Company expects to apply the standard using the cumulative effect transition basis, with a cumulative effect adjustment recognized at the beginning of fiscal year 2019.

NOTE 2: Allowance for Doubtful Accounts

The allowance for doubtful accounts reflects the best estimate of probable losses inherent in the accounts receivable balance and is based on known past due accounts, historical experience and other currently available evidence. Activity in the allowance for doubtful accounts was as follows:

In Thousands	2017	2016	2015
Beginning balance	\$17,028	\$10,050	\$10,023
Charged to expense	1,647	9,690	1,502
Other ¹	-	-	378
Write-offs	(2,640)	(2,712)	(1,853)
	\$16,035	\$17,028	\$10,050

¹ Other includes balances acquired and balances reclassified to assets held for sale.

NOTE 3: Inventories

Inventories at the end of fiscal 2017 and 2016 consisted of the following:

In Thousands	2017	2016
Raw materials and purchased parts	\$194,758	\$177,069
Work in progress	171,551	158,671
Inventory costs under long-term contracts	10,648	12,844
Finished goods	105,744	101,622
	\$482,701	\$450,206

NOTE 4: Goodwill

The following table summarizes the changes in goodwill by segment for fiscal 2017 and 2016:

In Thousands	Avionics & Controls	Sensors & Systems	Advanced Materials	Total
Balance, October 2, 2015	\$450,599	\$387,707	\$203,685	\$1,041,991
Goodwill adjustments	(1,732)	-	-	(1,732)
Foreign currency translation adjustment	(6,073)	(2,140)	(7,379)	(15,592)
Balance, September 30, 2016	442,794	385,567	196,306	1,024,667
Foreign currency translation adjustment	13,224	14,266	1,416	28,906
Balance, September 29, 2017	\$456,018	\$399,833	\$197,722	\$1,053,573

NOTE 5: Intangible Assets

Intangible assets at the end of fiscal 2017 and 2016 were as follows:

In Thousands	Weighted Average Years Useful Life	2017		2016	
		Gross Carrying Amount	Accum. Amort.	Gross Carrying Amount	Accum. Amort.
Amortized Intangible Assets:					
Programs	16	\$625,470	\$339,920	\$607,276	\$293,223
Core technology	12	15,926	13,123	15,926	11,778
Patents and other	12	89,736	60,335	86,286	51,250
Total		\$731,132	\$413,378	\$709,488	\$356,251
Indefinite-lived Intangible Assets:					
Trademarks		\$41,412		\$39,798	

Programs represent the valuation of systems or components sold under long-term supply agreements with aerospace companies, military contractors, and OEM manufacturers using similar technology. The valuation of the program includes the values of the program-specific technology, the backlog of contracts, and the relationship with customers which lead to potential future contracts. The valuation of the program is based upon its discounted cash flow at a market-based discount rate.

Amortization of intangible assets from continuing operations was \$44.2 million, \$49.4 million, and \$44.0 million in fiscal 2017, 2016, and 2015, respectively. Amortization of intangible assets related to discontinued operations was \$1.2 million in fiscal 2015.

Estimated amortization expense related to intangible assets for each of the next five fiscal years is as follows:

In Thousands

Fiscal Year	
2018	\$45,953
2019	45,076
2020	42,941
2021	41,555
2022	35,355

NOTE 6: Accrued Liabilities

Accrued liabilities at the end of fiscal 2017 and 2016 consisted of the following:

In Thousands	2017	2016
Payroll and other compensation	\$ 120,428	\$ 107,132
Commissions	4,442	5,901
Casualty and medical	16,067	14,933
Interest	6,592	6,397
Warranties	14,689	13,365
State and other tax accruals	5,222	4,737
Customer deposits	20,593	22,302
Deferred revenue	18,269	26,618
Contract reserves	5,109	8,822
Forward foreign exchange contracts	4,387	12,036
Litigation reserves	1,454	4,006
Environmental reserves	645	646
Deferred rent	1,645	1,925
Other	10,068	9,343
	\$ 229,610	\$ 238,163

Accrued liabilities are recorded to reflect the Company's contractual obligations relating to warranty commitments to customers. Warranty coverage of various lengths and terms is provided to customers depending on standard offerings and negotiated contractual agreements. An estimate for warranty expense is recorded at the time of sale based on the length of the warranty, historical warranty return rates and repair costs.

Changes in the carrying amount of accrued product warranty costs are summarized as follows:

In Thousands	2017	2016
Balance, beginning of year	\$ 13,365	\$ 14,658
Warranty costs incurred	(1,875)	(2,423)
Product warranty accrual	4,658	6,850
Release of reserves	(1,907)	(5,700)
Foreign currency translation adjustment	448	(20)
Balance, end of year	\$ 14,689	\$ 13,365

NOTE 7: Retirement Benefits

Approximately 40% of U.S. employees have a defined benefit earned under the Esterline pension plan.

Under the Esterline defined benefit plan, pension benefits are earned under a cash balance formula with annual pay credits ranging from 2% to 6% effective January 1, 2003. Prior to 2003, pension benefits are based on years of service and five-year average compensation for the highest five consecutive years' compensation during the last ten years of employment. Participants elected either to continue earning benefits under the prior plan formula or to earn benefits under the cash balance formula. Effective January 1, 2003, all new participants are enrolled in the cash balance formula. Esterline also has an unfunded supplemental retirement plan for key executives providing for periodic payments upon retirement.

CMC sponsors defined benefit pension plans and other retirement benefit plans for its employees in Canada. Pension benefits are based upon years of service and final average salary. Other retirement benefit plans are non-contributory health care and life insurance plans.

The Company sponsors a number of other non-U.S. defined benefit pension plans primarily in Belgium, France and Germany. These defined benefit plans generally provide benefits to employees based on formulas recognizing length of service and earnings.

The Company accounts for pension expense using the end of the fiscal year as its measurement date. In addition, the Company makes actuarially computed contributions to these plans as necessary to adequately fund benefits. The Company's funding policy is consistent with the minimum funding requirements of ERISA.

The accumulated benefit obligation and projected benefit obligation for Esterline's U.S. plans are \$309.2 million and \$321.2 million, respectively, with plan assets of \$294.4 million as of September 29, 2017. The underfunded status for the Esterline plans is \$26.8 million at September 29, 2017, of which \$22.4 million is for the unfunded supplemental retirement plan for key executives. Contributions to the Esterline non-qualified plans totaled \$1.4 million both in fiscal 2017 and 2016. There is no funding requirement for fiscal 2018 for the qualified U.S. pension plans maintained by Esterline.

The accumulated benefit obligation and projected benefit obligation for the CMC plans are \$137.5 million and \$138.5 million, respectively, with plan assets of \$140.2 million as of September 29, 2017. The funded status for these CMC plans is \$1.7 million at September 29, 2017. Contributions to the CMC plans totaled \$3.5 million and \$5.6 million in fiscal 2017 and 2016, respectively. The expected funding requirement for fiscal 2018 for the CMC plans is \$3.9 million.

The accumulated benefit obligation and projected benefit obligation for the other non-U.S. plans are \$39.3 million and \$49.6 million, respectively, with plan assets of \$23.0 million as of September 29, 2017. The underfunded status for these other non-U.S. plans is \$26.6 million at September 29, 2017. Contributions to the other non-U.S. plans totaled \$1.8 million and \$5.0 million in fiscal 2017 and 2016, respectively. The expected funding requirement for fiscal 2018 for the other non-U.S. plans is \$1.0 million.

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

Principal assumptions of the Esterline, CMC and other non-U.S. plans are as follows:

	Esterline U.S. Defined Benefit Pension Plans		CMC Defined Benefit Pension Plans		Other Non-U.S. Defined Benefit Pension Plans	
	2017	2016	2017	2016	2017	2016
Principal assumptions as of year end:						
Discount rate	3.75 %	3.60 %	3.76 %	3.22 %	1.40 - 8.75 %	0.90 - 7.75 %
Rate of increase in future compensation levels	4.48 %	4.28 %	2.75 %	2.75 %	2.96 - 10.29 %	2.96 - 10.13 %
Assumed long-term rate of return on plan assets	7.00 %	7.00 %	5.19 %	5.66 %	3.25 - 8.25 %	3.25 - 8.00 %
					Esterline U.S. Post-Retirement Pension Plans	CMC Post-Retirement Pension Plans
Principal assumptions as of year end:					2017	2016
Discount rate					3.75 %	3.60 %
Initial weighted average health care trend rate					6.00 %	6.00 %
Ultimate weighted average health care trend rate					6.00 %	6.00 %
					5.80 %	6.00 %
					4.10 %	4.20 %

The Company uses discount rates developed from a yield curve established from high-quality corporate bonds and matched to plan-specific projected benefit payments. Although future changes to the discount rate are unknown, had the discount rate increased or decreased by 25 basis points, pension liabilities in total would have decreased \$13.7 million or increased \$14.4 million, respectively. If all other assumptions are held constant, the estimated effect on fiscal 2017 pension expense from a hypothetical 25 basis points increase or decrease in both the discount rate and expected long-term rate of return on plan assets would not have a material effect on our pension expense. Management is not aware of any legislative or other initiatives or circumstances that will significantly impact the Company's pension obligations in fiscal 2018.

The assumed health care trend rate can have a significant impact on the Company's post-retirement benefit obligations. The Company's health care trend rate was based on the experience of its plans and expectations for the future. A 100 basis points increase in the health care trend rate would increase the post-retirement benefit obligation by \$1.4 million. A 100 basis points decrease in the health care trend rate would decrease the post-retirement benefit obligation by \$1.2 million. Assuming all other assumptions are held constant, the estimated effect on fiscal 2016 post-retirement benefit expense from a hypothetical 100 basis points increase or decrease in the health care trend rate would not have a material effect on our post-retirement benefit expense.

Plan assets are invested in a diversified portfolio of equity and debt securities consisting primarily of common stocks, bonds and government securities. The objective of these investments is to maintain sufficient liquidity to fund current benefit payments and achieve targeted risk-adjusted returns. Management periodically reviews allocations of plan

assets by investment type and evaluates external sources of information regarding the long-term historical returns and expected future returns for each investment type, and accordingly, the 3.25% to 8.25% assumed long-term rate of return on plan assets is considered to be appropriate. Allocations by investment type are as follows:

	Target	Actual	
		2017	2016
Plan assets allocation as of fiscal year end:			
Equity securities	35 - 70%	58.4 %	56.4 %
Debt securities	30 - 65%	35.3 %	37.1 %
Cash	0%	6.3 %	6.5 %
Total		100.0%	100.0%

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

The following table presents the fair value of the Company's Pension Plan assets as of September 29, 2017, by asset category segregated by level within the fair value hierarchy, as described in Note 8.

In Thousands	Fair Value Hierarchy		
	Level 1	Level 2	Total
Asset category:			
Equity Funds:			
Registered Investment Company Funds - U.S. Equity	\$ 113,997	\$-	\$ 113,997
U.S. Equity Securities	54,640	-	54,640
Non-U.S. Equity Securities	50,395	-	50,395
Commingled Trust Funds - Non-U.S. Securities	-	48,377	48,377
Fixed Income Securities:			
Commingled Trust Funds - Fixed Income	-	83,387	83,387
Non-U.S. Foreign Commercial and Government Bonds	-	77,931	77,931
Cash and Cash Equivalents	28,848	-	28,848
Total	\$247,880	\$209,695	\$457,575

The following table presents the fair value of the Company's Pension Plan assets as of September 30, 2016, by asset category segregated by level within the fair value hierarchy, as described in Note 8.

In Thousands	Fair Value Hierarchy		
	Level 1	Level 2	Total
Asset category:			
Equity Funds:			
Registered Investment Company Funds - U.S. Equity	\$ 104,075	\$-	\$ 104,075
U.S. Equity Securities	55,196	-	55,196
Non-U.S. Equity Securities	28,031	-	28,031
Commingled Trust Funds - Non-U.S. Securities	-	52,973	52,973
Fixed Income Securities:			
Commingled Trust Funds - Fixed Income	-	82,627	82,627
Non-U.S. Foreign Commercial and Government Bonds	-	75,414	75,414
Cash and Cash Equivalents	27,465	-	27,465
Total	\$214,767	\$211,014	\$425,781

Valuation Techniques

Level 1 Equity Securities are actively traded on U.S. and non-U.S. exchanges and are either valued using the market approach at quoted market prices on the measurement date or at the net asset value of the shares held by the plan on the measurement date based on quoted market prices.

Level 2 fixed income securities are primarily valued using the market approach at either quoted market prices, pricing models that use observable market data, or bids provided by independent investment brokerage firms.

Level 2 primarily consists of commingled trust funds that are primarily valued at the net asset value provided by the fund manager. Net asset value is based on the fair value of the underlying investments.

Cash and cash equivalents include cash which is used to pay benefits and cash invested in a short-term investment fund that holds securities with values based on quoted market prices, but for which the funds are not valued on quoted market basis.

60

Net periodic pension cost for the Company's defined benefit plans at the end of each fiscal year consisted of the following:

In Thousands	Defined Benefit Pension Plans			Post-Retirement Benefit Plans		
	2017	2016	2015	2017	2016	2015
Components of Net Periodic Cost						
Service cost	\$ 15,108	\$ 12,861	\$ 11,811	\$ 385	\$ 342	\$ 359
Interest cost	15,553	18,095	16,159	335	473	464
Expected return on plan assets	(25,866)	(24,491)	(23,872)	-	-	-
Settlement	21	2	3,522	-	-	-
Amortization of prior service cost	490	487	404	(5)	(17)	(63)
Amortization of actuarial						
(gain) loss	7,643	6,590	5,165	-	-	-
Net periodic cost (benefit)	\$ 12,949	\$ 13,544	\$ 13,189	\$ 715	\$ 798	\$ 760

The funded status of the defined benefit pension and post-retirement plans at the end of fiscal 2017 and 2016 were as follows:

In Thousands	Defined Benefit Pension Plans		Post-Retirement Benefit Plans	
	2017	2016	2017	2016
Benefit Obligations				
Beginning balance	\$505,298	\$453,283	\$13,236	\$12,187
Currency translation adjustment	9,340	268	665	26
Service cost	15,108	12,861	385	342
Interest cost	15,553	18,095	335	473
Plan participants contributions	318	376	-	-
Actuarial (gain) loss	(11,420)	44,136	(529)	738
Other adjustments	(1,254)	(859)	-	-
Benefits paid	(23,687)	(22,862)	(550)	(530)
Ending balance	\$509,256	\$505,298	\$13,542	\$13,236
Plan Assets - Fair Value				
Beginning balance	\$425,781	\$389,461	\$-	\$-
Currency translation adjustment	8,170	341	-	-
Realized and unrealized gain (loss) on plan assets	41,566	45,817	-	-
Plan participants contributions	318	376	-	-
Company contribution	6,681	12,041	550	530
Other adjustments	-	1,466	-	-
Expenses paid	(1,254)	(859)	-	-
Benefits paid	(23,687)	(22,862)	(550)	(530)
Ending balance	\$457,575	\$425,781	\$-	\$-
Funded Status				
Fair value of plan assets	\$457,575	\$425,781	\$-	\$-
Benefit obligations	(509,256)	(505,298)	(13,542)	(13,236)
Net amount recognized	\$(51,681)	\$(79,517)	\$(13,542)	\$(13,236)
Amount Recognized in the Consolidated Balance Sheet				
Non-current asset	\$4,267	\$2,395	\$-	\$-
Current liability	(1,840)	(1,912)	(669)	(716)
Non-current liability	(54,108)	(80,000)	(12,873)	(12,520)
Net amount recognized	\$(51,681)	\$(79,517)	\$(13,542)	\$(13,236)
Amounts Recognized in Accumulated Other Comprehensive Income				
Net actuarial loss (gain)	\$78,713	\$112,420	\$476	\$975
Prior service cost	2,593	2,951	-	-
Ending balance	\$81,306	\$115,371	\$476	\$975

The accumulated benefit obligation for all pension plans was \$486.0 million at September 29, 2017, and \$482.2 million at September 30, 2016.

Estimated future benefit payments expected to be paid from the pension and post-retirement benefit plans or from the Company's assets are as follows:

In Thousands

Fiscal Year

2018	\$28,083
2019	29,835
2020	31,087
2021	33,212
2022	33,715
2023 - 2027	180,157

Employees may participate in certain defined contribution plans. The Company's contribution expense under these plans totaled \$10.1 million, \$10.7 million, and \$9.5 million in fiscal 2017, 2016, and 2015, respectively. The Company contributes a matching amount that varies by participating company and employee group based on the first 6% of earnings contributed. The three formulas used are: 25% of the first 6%; or 50% of the first 6%; or 100% of the first 2% and 50% on the next 4%.

In fiscal 2014 the Company offered vested terminated participants in the Esterline plan a one-time opportunity to elect a lump-sum payment from the plan in lieu of a lifetime annuity. In the first fiscal quarter of 2015, the Company paid \$16.6 million in lump-sum payments to vested terminated pension plan participants from the plan, which resulted in an actuarial settlement charge of \$3.0 million. During the remainder of fiscal 2015, an additional \$1.4 million in lump-sum payments was distributed to cash balance participants under the ongoing terms of the plan, which resulted in an additional settlement charge of \$0.5 million in fiscal 2015.

NOTE 8: Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy has been established that prioritizes the inputs to valuation techniques used to measure fair value. An asset's or liability's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The hierarchy of fair value measurements is described below:

Level 1 – Valuations are based on quoted prices that the Company has the ability to obtain in actively traded markets for identical assets and liabilities. Since valuations are based on quoted prices that are readily and regularly available in an active market or exchange traded market, a valuation of these instruments does not require a significant degree of judgment.

Level 2 – Valuations are based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.

Level 3 – Valuations are based on model-based techniques for which some or all of the assumptions are obtained from indirect market information that is significant to the overall fair value measurement and which require a significant

degree of management judgment.

The following table sets forth the Company's financial assets and liabilities that were measured at fair value on a recurring basis by level within the fair value hierarchy at the end of fiscal 2017 and 2016:

In Thousands	Level 2	
	2017	2016
Assets:		
Derivative contracts designated as hedging instruments	\$13,932	\$2,948
Derivative contracts not designated as hedging instruments	284	143
Embedded derivatives	746	2,485
Liabilities:		
Derivative contracts designated as hedging instruments	\$464	\$7,828
Derivative contracts not designated as hedging instruments	2,440	6,720
Embedded derivatives	2,239	985

In Thousands	Level 3	
	2017	2016
Assets:		
Estimated value of assets held for sale	\$19,835	\$26,850
Liabilities:		
Estimated value of liabilities held for sale	\$8,908	\$11,133

The Company's embedded derivatives are the result of entering into sales or purchase contracts that are denominated in a currency other than the Company's functional currency or the supplier's or customer's functional currency. The fair value is determined by calculating the difference between quoted exchange rates at the time the contract was entered into and the period-end exchange rate. These contracts are categorized as Level 2 in the fair value hierarchy.

The Company's derivative contracts consist of foreign currency exchange contracts and, from time to time, interest rate swap agreements. These derivative contracts are over the counter and their fair value is determined using modeling techniques that include market inputs such as interest rates, yield curves, and currency exchange rates. These contracts are categorized as Level 2 in the fair value hierarchy.

The Company's Board of Directors previously approved a plan to sell certain non-core business units. Based upon the estimated fair values, the Company adjusted the carrying value of the assets and liabilities of the businesses to fair value. Principle assumptions used in measuring the estimated value of assets and liabilities held for sale included estimated selling price of the discontinued business, discount rates, industry growth rates, and pricing of comparable transactions in the market.

NOTE 9: Derivative Financial Instruments

The Company may use derivative financial instruments in the form of foreign currency forward exchange contracts and interest rate swap contracts for the purpose of minimizing exposure to changes in foreign currency exchange rates on business transactions and interest rates, respectively. The Company's policy is to execute such instruments with banks the Company believes to be credit worthy and not to enter into derivative financial instruments for speculative purposes. These derivative financial instruments do not subject the Company to undue risk, as gains and losses on these instruments generally offset gains and losses on the underlying assets, liabilities, or anticipated transactions that are being hedged.

All derivative financial instruments are recorded at fair value in the Consolidated Balance Sheet. For a derivative that has not been designated as an accounting hedge, the change in the fair value is recognized immediately through earnings. For a derivative that has been designated as an accounting hedge of an existing asset or liability (a fair value hedge), the change in the fair value of both the derivative and underlying asset or liability is recognized immediately through earnings. For a derivative designated as an accounting hedge of an anticipated transaction (a cash flow hedge), the change in the fair value is recorded on the Consolidated Balance Sheet in Accumulated Other Comprehensive Income (AOCI) to the extent the derivative is effective in mitigating the exposure related to the anticipated transaction. The change in the fair value related to the ineffective portion of the hedge, if any, is immediately recognized in earnings. The amount recorded within AOCI is reclassified into earnings in the same period during which the underlying hedged transaction affects earnings.

The fair values of derivative instruments are presented on a gross basis, as the Company does not have any derivative contracts which are subject to master netting arrangements. The Company does not have any derivative instruments with credit-risk-related contingent features or that required the posting of collateral as of September 29, 2017. The cash flows from derivative contracts are recorded in operating activities in the Consolidated Statement of Cash Flows.

Foreign Currency Forward Exchange Contracts

The Company transacts business in various foreign currencies which subjects the Company's cash flows and earnings to exposure related to changes in foreign currency exchange rates. These exposures arise primarily from purchases or sales of products and services from third parties. Foreign currency forward exchange contracts provide for the purchase or sale of foreign currencies at specified future dates at specified exchange rates, and are used to offset changes in the fair value of certain assets or liabilities or forecasted cash flows resulting from transactions denominated in foreign currencies. As of September 29, 2017, and September 30, 2016, the Company had outstanding foreign currency forward exchange contracts principally to sell U.S. dollars with notional amounts of \$406.9 million and \$450.9 million, respectively. These notional values consist primarily of contracts for the British pound sterling, Canadian dollar and European euro, and are stated in U.S. dollar equivalents at spot exchange rates at the respective dates.

Interest Rate Swaps

The Company manages its exposure to interest rate risk by maintaining an appropriate mix of fixed and variable rate debt, which over time should moderate the costs of debt financing. When considered necessary, the Company may use financial instruments in the form of interest rate swaps to help meet this objective.

Embedded Derivative Instruments

The Company's embedded derivatives are the result of entering into sales or purchase contracts that are denominated in a currency other than the Company's functional currency or the supplier's or customer's functional currency.

Net Investment Hedge

In April 2015 the Company issued €330.0 million in 3.625% Senior Notes due April 2023 (2023 Notes) and requiring semi-annual interest payments in April and October each year until maturity. The Company designated the 2023 Notes and accrued interest as a hedge of the investment in certain foreign business units. The foreign currency gain or loss that is effective as a hedge is reported as a component of other comprehensive income (loss) in shareholders' equity. To the extent that this hedge is ineffective, the foreign currency gain or loss is recorded in earnings. There was no ineffectiveness since inception of the hedge.

Fair Value of Derivative Instruments

Fair values of derivative instruments in the Consolidated Balance Sheet at the end of fiscal 2017 and 2016 consisted of:

In Thousands	Classification	Fair Value	
		2017	2016
Foreign Currency Forward Exchange Contracts:			
	Other current assets	\$ 11,433	\$ 1,757
	Other assets	2,783	1,334
	Accrued liabilities	2,506	11,168
	Other liabilities	398	3,380
Embedded Derivative Instruments:			
	Other current assets	\$ 604	\$ 1,864
	Other assets	142	621
	Accrued liabilities	1,657	866
	Other liabilities	582	119

The effect of derivative instruments on the Consolidated Statement of Operations for fiscal 2017 and 2016 consisted of:

Fair Value Hedges

The Company recognized the following gains (losses) on contracts designated as fair value hedges:

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

In Thousands	2017	2016
--------------	------	------

Embedded derivatives:

Gain (loss) recognized in sales	\$(1,709)	\$(3,552)
---------------------------------	-----------	-----------

Cash Flow Hedges

The Company recognized the following gains (losses) on contracts designated as cash flow hedges:

In Thousands	2017	2016
Foreign currency forward exchange contracts:		
Gain (loss) recognized in AOCI (effective portion)	\$26,326	\$37,969
Gain (loss) reclassified from AOCI into sales	(8,310)	(19,575)

Net Investment Hedges

The Company recognized the following gains (losses) on contracts designated as net investment hedges:

In Thousands	2017	2016
2023 Notes and Accrued Interest:		
Gain (loss) recognized in AOCI	\$(19,016)	\$(1,256)

Edgar Filing: ESTERLINE TECHNOLOGIES CORP - Form 10-K

During fiscal 2017 and 2016, the Company recorded a gain of \$5.8 million and a loss of \$6.1 million, respectively, on foreign currency forward exchange contracts that have not been designated as an accounting hedge. These foreign currency exchange gains (losses) are included in selling, general and administrative expense.

There was no significant impact to the Company's earnings related to the ineffective portion of any hedging instruments during fiscal 2017 and 2016. In addition, there was no significant impact to the Company's earnings when a hedged firm commitment no longer qualified as a fair value hedge or when a hedged forecasted transaction no longer qualified as a cash flow hedge during fiscal 2017 and 2016.

Amounts included in AOCI are reclassified into earnings when the hedged transaction settles. The Company expects to reclassify approximately \$10.9 million of net gain into earnings in fiscal year 2018. The maximum duration of a foreign currency cash flow hedge contract at September 29, 2017, is 24 months.

NOTE 10: Income Taxes

Income tax expense (benefit) from continuing operations for fiscal 2017, 2016 and 2015 consisted of:

In Thousands	2017	2016	2015
Current			
U.S. Federal	\$5,888	\$14,959	\$11,045
State	146	(852)	492
Foreign	39,453	30,314	24,131
	45,487	44,421	35,668
Deferred			
U.S. Federal	2,555	(6,703)	(7,686)
State	1,160	2,060	(195)
Foreign	(10,274)	(17,243)	(8,831)
	(6,559)	(21,886)	(16,712)
Income tax expense	\$38,928	\$22,535	\$18,956

U.S. and foreign components of earnings from continuing operations before income taxes for fiscal 2017, 2016 and 2015 were:

In Thousands 2017 2016 2015