

INNOVATIVE SOLUTIONS & SUPPORT INC
Form 10-K
December 15, 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 30, 2017

OR

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

For the transition period from _____ to _____.

Commission File No. 000-31157

INNOVATIVE SOLUTIONS AND SUPPORT, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania
(State or other jurisdiction of incorporation)

23-2507402
(IRS Employer Identification No.)

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720 Pennsylvania Drive, Exton, Pennsylvania
(Address of principal executive offices)

19341
(Zip Code)

(610) 646-9800
(Registrant's telephone number, including area code)

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

Title of each class:	Name of each exchange on which registered
Common Stock par value \$.001 per share	NASDAQ Global Market

Securities registered pursuant to Section 12(g) of the Act: **None**

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

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

Note: Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or section 15(d) of the Exchange Act from their obligations under those sections.

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 (§229.405) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

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Large accelerated filer
Non-accelerated filer
Emerging growth company

Accelerated filer
Smaller Reporting 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 Act). Yes No

The aggregate market value of the Registrant's common stock held by non-affiliates of the Registrant as of March 31, 2017 (the last business day of the registrant's most recently completed second quarter) was approximately \$38.4 million (based on the closing sale price of the registrant's common stock on the NASDAQ Global Market on such date). Shares of common stock held by each executive officer and director and by each person who owns 10% or more of the Registrant's outstanding common stock have been excluded since such persons may be deemed affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of November 30, 2017, there were 16,783,129 outstanding shares of the Registrant's Common Stock

Documents Incorporated by Reference

Portions of the Registrant's Proxy Statement for the 2018 Annual Meeting of Shareholders to be filed prior to January 29, 2018 are incorporated by reference into Part III of this Report. Such Proxy Statement, except for the parts therein which have been specifically incorporated by reference, shall not be deemed filed for the purposes of this Report on Form 10-K.

Table of Contents

INNOVATIVE SOLUTIONS AND SUPPORT, INC.

2017 Annual Report on Form 10-K

Table of Contents

	Page
<u>Part I</u>	
<u>Item 1.</u> <u>Business</u>	3
<u>Item 1A.</u> <u>Risk Factors</u>	13
<u>Item 1B.</u> <u>Unresolved Staff Comments</u>	20
<u>Item 2.</u> <u>Properties</u>	20
<u>Item 3.</u> <u>Legal Proceedings</u>	20
<u>Item 4.</u> <u>Mine Safety Disclosures</u>	20
<u>Part II</u>	
<u>Item 5.</u> <u>Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Repurchases of Equity Securities</u>	21
<u>Item 6.</u> <u>Selected Consolidated Financial Data</u>	22
<u>Item 7.</u> <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	23
<u>Item 7A.</u> <u>Quantitative and Qualitative Disclosures About Market Risk</u>	33
<u>Item 8.</u> <u>Financial Statements and Supplementary Data</u>	33
<u>Item 9.</u> <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	58
<u>Item 9A.</u> <u>Controls and Procedures</u>	58
<u>Part III</u>	
<u>Item 10.</u> <u>Directors, Executive Officers and Corporate Governance</u>	59
<u>Item 11.</u> <u>Executive Compensation</u>	59
<u>Item 12.</u> <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	59
<u>Item 13.</u> <u>Certain Relationships and Related Transactions and Director Independence</u>	60
<u>Item 14.</u> <u>Principal Accounting Fees and Services</u>	60
<u>Part IV</u>	
<u>Item 15.</u> <u>Exhibits, Financial Statement Schedules</u>	61

Table of Contents

FORWARD LOOKING STATEMENTS

This report contains forward looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). These forward looking statements are based largely on current expectations and projections about future events and trends affecting the business, are not guarantees of future performance, and involve a number of risks, uncertainties and assumptions that are difficult to predict. In this report, the words anticipates, believes, may, will, estimates, continues, anticipates, intends, forecasts, expects, plans, could, should, would, is likely and similar expressions, as they relate to the business or to its management, are intended to identify forward looking statements, but they are not exclusive means of identifying them. Unless the context otherwise requires, all references herein to IS&S, the Registrant, the Company, we, us or our are to Innovative Solutions and Support, Inc. and its consolidated subsidiaries.

The forward looking statements in this report are only predictions, and actual events or results may differ materially. In evaluating such statements, a number of risks, uncertainties and other factors could cause actual results, performance, financial condition, cash flows, prospects and opportunities to differ materially from those expressed in, or implied by, the forward looking statements. These risks, uncertainties and other factors include those set forth in Item 1A (Risk Factors) of this Annual Report on Form 10-K and the following factors:

- *market acceptance of the Company s flat panel display systems, NextGen Flight Deck, ThrustSense Integrated PT6 Autothrottle (patent pending) and COCKPIT/IP® or other planned products or product enhancements;*
- *continued market acceptance of the Company s air data systems and products;*
- *the competitive environment and new product offerings from competitors;*
- *difficulties in developing and producing the Company s NextGen Flight Deck, ThrustSense Integrated PT6 Autothrottle (patent pending), COCKPIT/IP® Flat Panel Display System or other planned products or product enhancements;*
- *the deferral or termination of programs or contracts for convenience by customers;*
- *the availability of government funding;*
- *the impact of general economic trends on the Company s business;*
- *the ability to gain regulatory approval of products in a timely manner;*
- *delays in receiving components from third party suppliers;*
- *the bankruptcy or insolvency of one or more key customers;*
- *protection of intellectual property rights;*
- *failure to retain/recruit key personnel;*

- *a cyber security incident;*
- *the ability to service the international market;*
- *risks related to our self-insurance program;*
- *potential future acquisitions;*
- *changes in law, including changes to corporate tax laws in the United States and the availability of certain tax credits; and*
- *other factors disclosed from time to time in the Company's filings with the United States Securities and Exchange Commission (the SEC).*

Except as expressly required by the federal securities laws, the Company undertakes no obligation to publicly update or revise any forward looking statements, whether as a result of new information, future events, or otherwise after the date of this report. Results of operations in any past period should not be considered indicative of the results to be expected for future periods. Fluctuations in operating results may result in fluctuations in the price of the Company's common stock.

Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K. The Company does not undertake any obligation to publicly release any revisions to these forward-looking statements to reflect events, circumstances or changes in expectations after the date of this Annual Report on Form 10-K, or to reflect the occurrence of unanticipated events. The forward-looking statements in this document are intended to be subject to the safe harbor protection provided by Sections 27A of the Securities Act of 1933, as amended (the Securities Act), and 21E of the Exchange Act.

*Investors should also be aware that while the Company, from time to time, communicates with securities analysts, it is against its policy to disclose any material non-public information or other confidential commercial information. Accordingly, shareholders should not assume that the Company agrees with any statement or report issued by any analyst irrespective of the content of the statement or report. Furthermore, the Company has a policy against issuing or confirming financial forecasts or projections issued by others. Thus, to the extent that reports issued by securities analysts contain any projections, forecasts or opinions, such reports are **not** the responsibility of Innovative Solutions and Support, Inc.*

Table of Contents

PART I

Item 1. Business.

Overview

Innovative Solutions and Support, Inc. (the Company, IS&S, we or us) was incorporated in Pennsylvania on February 12, 1988. The Company operates in one business segment as a systems integrator that designs, develops, manufactures, sells, and services air data equipment, engine display systems, standby equipment, primary flight guidance, autothrottles and cockpit display systems for retrofit applications and original equipment manufacturers (OEMs). The Company supplies integrated Flight Management Systems (FMS), Flat Panel Display Systems (FPDS), FPDS with Autothrottle, air data equipment, Integrated Standby Units (ISU), ISU with Autothrottle and advanced Global Positioning System (GPS) receivers that enable reduced carbon footprint navigation.

The Company has continued to position itself as a system integrator, which capability provides the Company with the potential to generate more substantive orders over a broader product base. The strategy, as both a manufacturer and integrator, is designed to leverage the latest technologies developed for the computer and telecommunications industries into advanced and cost-effective solutions for the general aviation, commercial air transport, United States Department of Defense (DoD)/governmental, and foreign military markets. This approach, combined with the Company's industry experience, is designed to enable IS&S to develop high-quality products and systems, to reduce product time to market, and to achieve cost advantages over products offered by its competitors.

For several years the Company has been working with advances in technology to provide pilots with more information to enhance both the safety and efficiency of flying, and has developed its COCKPIT/IP® Cockpit Information Portal (CIP) product line, that incorporates proprietary technology, low cost, reduced power consumption, decreased weight, and increased functionality. The Company believes the CIP product line is suited to address market demand that will be driven by regulatory mandates, new technologies, and the high cost of maintaining aging/obsolete equipment on airplanes that have been in service for up to fifty years. The Company has incorporated Electronic Flight Bag (EFB) functionality, such as charting and mapping systems, into its FPDS product line.

The Company has developed an FMS that combines the savings long associated with in flight fuel optimization in enroute flight management combined with the precision of satellite-based navigation required to comply with the regulatory environments of both domestic and international markets. The Company believes that the FMS coupled with its FPDS product line is well suited to address market demand driven by certain regulatory mandates, new technologies, and the high cost of maintaining aging and obsolete equipment on aircraft that will be in service for up to fifty years. The shift in the regulatory and technological environment is illustrated by the dramatic increase in the number of Space Based Augmentation System (SBAS) or Wide Area Augmentation System (WAAS) approach qualified airports, particularly as realized through Localizer Performance with Vertical guidance (LPV) navigation procedures. Aircraft equipped with the Company's FMS and FPDS product line (equipped with a SBAS/WAAS/LPV enabled navigator) will be qualified to land at such airports and to comply with upcoming Federal Aviation Administration (FAA) mandates for Required Navigation Performance (RNP), and Automatic Dependent Surveillance-Broadcast (ADS-B) navigation, a fact which IS&S believes will further increase the demand for the Company's products. The Company's FMS/FPDS product line is designed for new production and retrofit applications into general aviation, commercial air transport and military transport aircraft. In addition, the Company offers a state of the art ISU, integrating the full functionality of the primary and navigation displays into a small backup-powered unit. This ISU builds on the Company's legacy air data computer to form a complete next-generation cockpit display and navigation upgrade offering to the commercial and military markets.

More recently, the Company has developed and received certification on its NextGen Flight Deck featuring its ThrustSense Integrated PT6 Autothrottle (patent pending) (ThrustSense Autothrottle) for retrofit in the Pilatus PC-12. The NextGen Flight Deck features Primary Flight and Multi-Function Displays, ISUs as well as an Integrated FMS and Electronic Flight Bag System. The innovative avionics suite includes dual flight management systems, autothrottles, synthetic vision and enhanced vision. The NextGen enhanced avionics suite is available for integration into other business aircraft with Non-FADEC and FADEC engines.

The ThrustSense Autothrottle is innovative in that it is the first autothrottle developed for a turbo prop that allows a pilot to automatically control the power setting of the engine. The autothrottle computes and controls appropriate power levels reducing overall pilot workload. The system computes thrust, holds selected speed/torque, and implements appropriate speed and engine limit protection. When engaged by the pilot, the autothrottle system adjusts the throttles automatically to achieve and hold the selected airspeed guarded by a torque/temperature limit mode. The Autothrottle system takes full advantage of the integrated cockpit utilizing Weight and Balance information for optimal control settings and enabling safety functions like a Turbulence control mode.

Table of Contents

IS&S sells to both the OEM and the retrofit markets. Customers include various OEMs, commercial air transport carriers and corporate/general aviation companies, DoD and its commercial contractors, aircraft operators, aircraft modification centers, and foreign militaries. Occasionally, IS&S sells its products directly to DoD; however, the Company sells its products primarily to commercial customers for end use in DoD programs. Sales to defense contractors are generally made on commercial terms, although some of the termination and other provisions of government contracts are applicable to these contracts.

Customers have been and may continue to be affected by the uncertain economic conditions that currently exist both in the United States and abroad. Such conditions may cause customers to curtail or delay their spending on both new and existing aircraft. Factors that can impact general economic conditions and the level of spending by customers include, but are not limited to, general levels of consumer spending, increases in fuel and energy costs, conditions in the real estate and mortgage markets, labor and healthcare costs, access to credit, consumer confidence, and other macroeconomic factors that affect spending behavior. Furthermore, spending by government agencies may be reduced in the future if tax revenues decline, including as a result of currently proposed tax reform legislation in the United States. If customers curtail or delay their spending or are forced to declare bankruptcy or liquidate their operations because of adverse economic conditions, the Company's revenues and results of operations would be affected adversely. However, the Company believes that, in an uncertain economic environment, customers that may have otherwise elected to purchase newly manufactured aircraft may be interested instead in retrofitting existing aircraft as a cost-effective alternative, thereby creating a market opportunity for IS&S.

Industry

A wide range of information is critical for proper and safe operation of aircraft. With advances in technology, new types of information to assist pilots are becoming available for display in cockpits, such as satellite-based weather, ground terrain maps, and ADS-B navigation. The Company believes that aircraft cockpits will become more complete information centers, capable of delivering additional information that is either mandated by regulation or demanded by pilots to assist in the safe and efficient operation of aircraft.

The Company classifies flight data into four general types: aircraft heading and altitude information, flight critical aircraft control data, navigation data, and maintenance and aircraft health data. Aircraft heading and altitude information includes; aircraft speed, altitude, and rates of ascent and descent. Flight critical aircraft control information includes; engine data such as fuel and oil quantity, and other engine measurements. Navigation data includes; radio position, flight management, GPS, and alternative source information (i.e. information not originating on the aircraft, including weather depiction maps, GPS navigation, and surface terrain maps). Maintenance and aircraft health data includes on-board sensors and programs to measure parameters related to the health of a system on the aircraft. Air data calculations are based primarily on air pressure measurements derived from sensors on the aircraft. Engine data are determined by measuring various indices such as temperature, volume, revolutions per minute (RPM), and pressure within an aircraft's engines and other mechanical equipment. GPS and alternative source information are derived typically from satellites or equipment located on land and transmitted by satellite or radio signals to the aircraft. Maintenance and aircraft health data measure multiple parameters on various products and interface with various components to manage, measure, and report on the health, reliability and usability of a system. This information is displayed in the cockpit for reference, enhanced position awareness, and reduced support logistics on properly equipped aircraft.

Traditionally, flight data and other cockpit information were displayed on a series of separate analog mechanical instruments. In the early 1980s, Cathode Ray Tubes (CRT) and digital displays using Liquid Crystal Displays (LCD) began to replace some individual analog instruments. Presently, the industry offers high resolution color flat panels using Active Matrix Liquid Crystal Displays (AMLCD) to replace traditional analog instruments, CRT or LCD displays. IS&S expects that the ability to display more information in an efficient space and custom platform will become increasingly important if additional information, such as weather depiction maps, traffic information, surface terrain maps, datalink messaging, and surveillance displays, becomes mandated by regulation or demanded by pilots. Accordingly, the Company believes flat panel displays, which can integrate and display a suite of information, will replace individual instruments CRTs and LCDs on legacy aircraft.

In the past, equipment data, such as engine and fuel-related information, were displayed on conventional analog mechanical instruments. Engine and fuel instruments provide information on engine activity, including oil and hydraulic pressures, and temperature. These instruments are clustered throughout an aircraft's cockpit. Engine and fuel instruments tend to be replaced more frequently than other instruments due to obsolescence and normal wear-and-tear. Aircraft operators continue to purchase individual conventional engine and fuel instruments as replacements, because the information that these instruments display is vital for safe and efficient flight. Increasingly, operators are replacing their clusters of analog mechanical instruments with integrated Engine Instrument Display Systems (EIDS) or a FPDS packages.

As the skies and airports become more crowded, the aviation industry and its regulators are concentrating on new technologies, procedures, and regulations that allow more aircraft to operate in the skies and on the ground safely, efficiently, and with less impact

Table of Contents

on the environment. These new technologies and procedures, such as traffic avoidance, ground awareness, increased precision of navigation and vertical position, runway incursion prevention, and increased digital communication, will require innovation and intuitive methods to display situational awareness information for the pilots. The Company believes that flat panel displays provide the best solution to these requirements.

Strategy

The Company's objective is to become a leading supplier and integrator of cockpit information, and believes that its industry experience and reputation, technology and products, and business strategy provide the basis to achieve this objective. Key elements of the Company's strategy include:

- *Focusing on retrofits.* Cockpit avionics upgrades for existing aircraft is of great interest in the present environment. The retrofit of an aircraft with the COCKPIT/IP® FPDS, FMS, and ISU system components is cost effective compared to the acquisition of a new aircraft and can provide equivalent functionality to that of new aircraft.
- *Introduction of Autothrottle to General Aviation Market.* IS&S saw the lack of an available autothrottle system on turboprop aircrafts as a great unmet need in the marketplace and over the last two years has invested in the development of a sophisticated turboprop autothrottle. ThrustSense, IS&S's new turboprop autothrottle with patent pending technology, is highly effective, is less complex and less costly than other available products and offers very sophisticated sensing and adds multiple safety features that we believe even exceeds those of much more expensive jet systems. The Company received the first supplemental type certificate (STC) ever granted by the Federal Aviation Administration (FAA) for a turboprop autothrottle in July 2017. IS&S plans to capitalize on being the first to market and introduce the product to owners and operators of turboprop aircraft.
- *Establishing leadership in the flat panel display market.* IS&S expects that many aircraft will be retrofitted with flat panel displays over the next several years. Given the versatility, visual appeal, and lower cost of displaying a series of instruments and other flight relevant information on a single flat panel, the Company believes that flat panel displays will increasingly replace individual analog and digital instruments, LCDs and CRTs. The Company believes that the COCKPIT/IP® has significant benefits over competitive flat panel displays, including lower cost, larger size, reduced weight, enhanced viewing angles, and a broader array of functions. The Company's patented and proprietary Integrity Checking Processor and Zooming features provide increased situational awareness, reliability, performance, and utility to the owner/operator. Accordingly, the Company believes that these advantages will allow IS&S to generate significant revenues from the COCKPIT/IP® product, and to increase market share. In addition, demand for new aircraft, FAA mandates and obsolescence issues on older aircraft will contribute to this growth.
- *Continuing engineering and product development successes.* IS&S develops innovative products by combining its avionics, engineering, and design expertise with commercially available technologies, components, and

products from non-aviation applications, including the personal computer and telecommunications industries. The Company's COCKPIT/IP® system components present examples of its ability to engineer products through the selective application of non-avionic technology. In addition, as permitted by law, IS&S applies for and registers its patents and trademarks for the technology and products it develops in the United States and various countries around the world to protect its intellectual property. Research and development (R&D) expenses were \$4.5 million, \$4.9 million and \$2.7 million for fiscal years ended September 30, 2017, 2016 and 2015, respectively. During fiscal 2017, 2016 and 2015 revenues related to Engineering Development Contracts (EDC) accounted for 4%, 4% and 27%, respectively, of total sales. In support of these EDC programs, the Company charged \$0.4 million, \$0.4 million, and \$4.7 million for fiscal years ended September 30, 2017, 2016 and 2015, respectively to cost of sales.

- *Maintaining leadership in air data markets.* The Company believes that it is one of the largest suppliers of air data products to the U.S. retrofit market. The pressures on DoD procurement budget make the retrofit of aging military aircraft with newer, more advanced, and more supportable air data systems more attractive. In addition, higher performance engines in business aircraft are creating a need for more sophisticated air data products which the Company supplies.

- *Increasing sales to DoD, other government agencies, defense contractors, commercial air transport and corporate/general aviation markets.* IS&S has extended its efforts to diversify sales to include all aviation end user markets, especially legacy military programs and commercial air transport aircraft. In the commercial air transport market, the Company has addressed national carriers, regional carriers, and other fleet operators. The Company has targeted the corporate/general aviation market, both for retrofits and original equipment, and has ongoing retrofit programs and two OEM programs with Eclipse Aerospace, Inc. (Eclipse) and Pilatus Aircraft Limited (Pilatus).

Table of Contents

- *Expanding international presence.* IS&S plans to increase its international sales by adding sales and marketing personnel. The Company believes that European and other international aircraft operators and aircraft modification centers will retrofit legacy in-service aircraft with large flat panel displays. IS&S obtained approval from the European Aviation Safety Agency (EASA) for installing the FPDS in Europe for the B757/B767 aircraft and expects to obtain EASA approvals for other European aircraft types.

Products

Current lines of products include:

Flat Panel Display Systems

Flat panel displays are AMLCD screens that can replicate the display of one or a suite of analog or digital displays on one screen. Flat panel displays can replace existing displays in legacy aircraft. AMLCDs are used also for security monitoring on-board aircraft and as tactical workstations on military aircraft. The flat panel product line offers numerous advantages for presentation of engine performance data. During fiscal years 2017, 2016 and 2015, revenues related to FPDS accounted for 89%, 95% and 98%, respectively, of total sales.

The Company's FPDS can replace conventional analog and digital displays and can display additional information which is not commonly displayed in the cockpit with conventional analog and digital displays. The COCKPIT/IP® is capable of displaying nearly all types of air data, engine and fuel data, altitude, heading and navigational data, maintenance and aircraft health data, and alternative source information. As technology and information delivery systems develop further, additional information will be displayed in the cockpit, such as surface terrain maps and data link messaging. IS&S designed the COCKPIT/IP® to be capable of displaying information from a variety of sources, including its Reduced Vertical Separation Minimum (RVSM) air data system, engine and fuel instrumentation, and third-party data and information products.

From time to time, customers may order one or more FPDSs customized to their particular requirements. Typically, the Company charges for the added development cost. This revenue is reported as EDC on the consolidated statements of operations. Engineering costs incurred in customizing the FPDSs are included in cost of sales.

Flight Management Systems

The IS&S NextGen Flight Management System is an easily installed navigation and performance computer that complements the IS&S Flat Panel Display System upgrade for commercial air transport aircraft. The FMS interfaces with the IS&S SBAS GPS Global Positioning System

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(GPS) to provide a GPS based navigation solution. The GPS receiver is located remotely depending on space availability. To minimize use of cockpit space and ease installation efforts, the FMS is housed in an ARINC 739B compliant Multifunction and Control Display Unit (MCDU).

Each FMS/MCDU has an LCD display, keyboard, mode and function keys, line select keys, annunciator lights, and supports ethernet data loading. The flight crew can manually or datalink waypoint flight plans, routes or user-defined waypoints on the IS&S FMS and modify and update these plans via the FMS/MCDU screen. Once the flight plan data is entered, the MCDU computes the most economical flight profiles and provides steering commands for use by the aircraft control system to fly the airplane along the desired route.

The FMS/MCDU package incorporates a robust navigation database capable of storing today's global database with ample growth for the future. Flight crews can utilize the data in the navigation database to create, edit and modify flight plans for display on the FPDS. The navigation data includes airways, jet routes, Standard Instrument Departure (SID), Standard Terminal Arrival Route (STAR), and company stored routes.

The FMS/MCDU is ARINC 739B compliant, which provides an interface option for other cockpit equipment such as SATCOM, ACARS, CMU, HUD, and a printer. The interface to the IS&S FPDS is provided via Ethernet. The IS&S EFB is integrated with the FMS/MCDU and FPDS where the control selection of the EFB features and applications are handled via the FMS/MCDU. The display is a five inch LCD with VGA resolution. The touchscreen display uses LED backlighting and is sunlight readable.

Integrated Standby Unit

The Company's new ISU incorporates the measurement and display of attitude, altitude, airspeed, and navigation data into a single standby/backup navigation instrument for military, commercial air transport and corporate/general aviation applications. The ISU has

Table of Contents

an integral Inertial Measurement Unit that includes accelerometer, gyro, and magnetometer triads. The unit also includes an integral air data measurement module for measurement of static and total pressure for display of altitude, airspeed, and mach number.

The ISU is a highly reliable and accurate standby navigation system that is based on IS&S's merger of COCKPIT/IP® display technology and RVSM air data products coupled with the latest breakthroughs in MEMS Gyros with exceptional stability. An IS&S proprietary algorithm provides for accurate computation of attitude, heading and air data parameters. The unit includes a triaxial magnetometer that is designed to be tolerant to the local soft iron effects.

The display uses a familiar Primary Flight Display format to reduce pilot workload. Logistics and maintenance savings are realized due to increased reliability and a reduction in LRUs. The unit is equipped with built-in test and display of navigational aid and maintenance data.

Air Data Systems and Components/Integrated Standby Unit with Autothrottle

The Company's air data products calculate and display various measures such as aircraft speed, altitude, and vertical rate of change. These air data products utilize advanced sensors to gather air pressure data and customized algorithms to interpret data, thus allowing the system to calculate altitude more accurately. During fiscal 2017, 2016, and 2015, sales of air data systems and components accounted for 11%, 5% and 2%, respectively, of total sales.

IS&S sells individual components and partial and complete air data systems. The components and systems include:

- digital air data computers, which calculate various air data parameters such as altitude, airspeed, vertical speed, angle of attack and other information derived from the measure of air pressure;
- integrated air data computers and display units, which calculate and convey air data information;
- altitude displays, which convey aircraft altitude measurements;
- airspeed displays, which convey various airspeed measurements including vertical airspeed and rates of ascent and descent; and

- altitude alerters which allow pilots to select a desired cruising altitude and which provide warnings to pilots when an unacceptable deviation occurs.

Engine and Fuel Displays

IS&S develops, manufactures and markets engine and fuel displays. These solid-state multifunction displays convey information with respect to fuel and oil levels, and engine activity, such as oil and hydraulic pressure and temperature. They include individual and multiple displays installed throughout the cockpit. The displays can be used in conjunction with the Company's engine and fuel data equipment or that of other manufacturers.

Engine and fuel displays are vital to safe flight. In addition, accurate conveyance of engine and fuel information is critical for monitoring engine stress and parts maintenance. Engine and fuel displays tend to be replaced more frequently than other displays, and have been slow to incorporate new technology since their introduction because of their low cost, standard design and universal use.

IS&S believes that its air data engine and fuel displays are extremely reliable, have been designed to be programmable, and are adaptable easily without major modification to most modern aircraft. These products have been installed on B727, B737, C-130H, DC-9, DC-10, P-3, F-16 and A-10 aircraft.

Integrated Global Navigation System

The Company's Integrated Global Navigation System (IGNS) product is an alternative for adding GPS navigation capability to legacy aircraft through the OEM FMS without the high cost of upgrading the current FMS.

This product includes RNP and RNAV approaches via the certified IS&S Beta 3 GPS and leverages components of the Company's Flat Panel Display System to provide annunciation to the pilot during GPS procedures.

Table of Contents

Autothrottle

The ThrustSense Autothrottle allows a pilot to automatically control the power setting of the engine. The autothrottle computes and controls appropriate power levels reducing pilot workload.

ThrustSense Autothrottle computes thrust, holds selected speed/torque, and implements appropriate limit protection. When engaged by the pilot, the autothrottle system adjusts the throttles automatically to achieve and hold the selected airspeed guarded by a torque/temperature limit mode. ThrustSense's Engine Out Thrust Control automatically adjusts remaining engine power if the airspeed falls below minimum-control airspeed (V_{mc}). The pilot can maintain control as the autothrottle mitigates the adverse yaw allowing the aircraft to safely accelerate under full control.

The autothrottle can be adapted to virtually all PT6 powered aircraft with the IS&S Flight Instrument Standby. The Standby executes software to control the autothrottle actuator. In addition the ISU calculates, processes and displays altitude, attitude, airspeed, slip/skid, and navigation display information in a logical and concise single instrument display. It features a high resolution LCD display with full LED backlighting improving reliability and full sunlight readability to the pilot. The graphics are fully anti-aliased with unprecedented accuracy and detail.

The autothrottle retrofit and standby are easily installed; with typical installation taking less than a day with minimum modifications to the existing flight deck.

Other potential benefits of the ThrustSense Autothrottle include:

- safety enhancements and pilot workload reduction;
- potential life-saving enhancements in multi-engine aircraft;
- full-authority digital engine (FADEC)-like engine protection;
- does not require replacement of the existing throttle quadrant (major cockpit modification) due to the patent pending compact and safe actuation mechanism; and
- broader applications for retrofit in FADEC or non-FADEC Turbofan and Turboprop aircraft.

Utilities Management System

Announced in 2013, IS&S provides the Utilities Management System (UMS) for the Pilatus PC-24 which is nearing certification. The IS&S UMS integrates utility wide range of aircraft functions, which are commonly supported by multiple individual controllers. The UMS-24 will

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monitor aircraft sensors and control aircraft systems as required to achieve system functionality. This open architecture system allows Pilatus to design and/or refine control and monitoring algorithms, in-house.

IS&S believes there is quite a bit of interest in its UMS from other aircraft manufacturers as well. The UMS is an innovative design that controls 20 plus aircraft systems such as navigation, auto-flight, landing gear, surface positions, fire protection, ice/rain protection, electrical loads, lighting, environmental conditions, cabin pressurization, and oxygen systems based on OEM custom configuration.

The UMS is a Data Concentrator and Processing Unit (DCPU) that allows manufacturers to configure and program specific applications on a ARINC 653 operating system and an open architecture platform. The UMS acts as the aircraft central maintenance computer allowing for a maximum of six DCPUs to be included in the communication ring. The system provides a significant power and weight saving over the use of federated boxes and utilizes the latest IS&S technological advancements in avionics circuit design.

Customers

The Company's customers include the United States government (including DoD, the Department of Interior (DOI) and the Department of Homeland Security (DHS), American Airlines, Inc. (AAI), Boeing, Deutsche Post DHL Group (DHL), Eclipse, FedEx Corporation (FedEx), Icelandair, L-3 Communications, Lockheed Martin Corporation, Pilatus, Sierra Nevada Corporation (Sierra Nevada), and the Department of National Defense (Canada), among others. In fiscal year 2017, the three largest customers, Sierra Nevada, Pilatus and DHL accounted for 16%, 12% and 10% of total revenue, respectively. In fiscal year 2016, the three largest customers, Sierra Nevada, Jet2.com and DHL accounted for 13%, 12% and 11% of total revenue, respectively. In fiscal 2015, the two largest customers, Pilatus and Eclipse accounted for 20% and 15% of total revenue, respectively.

Retrofit Market

Historically, a majority of the Company's sales have come from the retrofit market, which IS&S has pursued because of its continued growth in response to the need to support the world's aging fleet of aircraft. The design and airframe structure of many types of older aircraft generally exceeds the technology and technical capabilities of the original cockpit instruments and avionics. The Company has

Table of Contents

developed products that enable owners and operators to upgrade their aircraft by retrofitting them with IS&S products at a competitive cost and with equipment that provides cockpit displays with capabilities and technology equivalent to new aircraft.

IS&S expects its main customers in the retrofit market will continue to be:

- the DoD and defense contractors,
- aircraft operators, and
- aircraft modification centers.

Department of Defense and Defense Contractors. The Company sells its products directly to the DoD and to domestic and international defense contractors for end use on military aircraft retrofit programs. DoD programs generally take one of two forms: a subcontract with a prime government contractor, such as Boeing, Lockheed Martin, or L-3 Communications, or a direct contract with the appropriate government agency, such as the U.S. Air Force. The government's desire for cost-effective retrofit of its aircraft has led it to purchase commercial off-the-shelf equipment rather than to develop specially designed products, which are usually more costly and take longer to implement. These retrofit contracts tend to be on arms-length commercial terms, although some termination and other provisions of government contracts are typically applicable to these contracts, as described under *Government Regulation* below. Each government agency or general contractor retains the right to terminate a contract at any time at its convenience. Upon such alteration or termination, IS&S is entitled typically to be compensated for already delivered items and reimbursement for allowable costs incurred.

Aircraft Operators. The Company sells its products to aircraft operators, including commercial airlines, cargo carriers, and business and general aviation aircraft owners or suppliers, primarily for retrofitting of aircraft owned or operated by these customers. The Company's commercial fleet customers include or have included, among others, AAI, ABX Air, FedEx and Icelandair. IS&S sells these customers a range of products from FPDS to air data systems.

Aircraft Modification Centers. Aircraft modification centers, which repair and retrofit private aircraft, represent the primary retrofit market for private and corporate jets. IS&S has established relationships with a number of aircraft modification centers throughout the United States, which act as distribution outlets for the Company's products.

OEM Market

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Since 2009, IS&S has been providing, through Eclipse, enhanced capability through retrofits to numerous owners of aircraft produced by Eclipse Aviation Inc., the assets of which were acquired by Eclipse in 2009. On April 15, 2015, Eclipse merged with Kestrel Aircraft to form One Aviation. IS&S is also developing and manufacturing the UMS for Pilatus PC-24 aircraft under a multi-year production contract as described above under -Products-Utility Management System . IS&S also markets its products to other original equipment manufacturers including, among others, Boeing and Lockheed Martin.

Backlog

\$000 s	September 30			
		2017		2016
Backlog, beginning of period	\$	4,569	\$	7,601
Plus: bookings during period, net		15,715		24,938
Less: sales recognized during period		(17,245)		(27,970)
Backlog, end of period	\$	3,039	\$	4,569

Backlog represents the value of contracts and purchase orders, less the revenue recognized to date on those contracts and purchase orders. The year over year decrease of \$1.5 million was the result of booking of \$15.7 million in new business, offset by \$17.2 million in recognized revenue. Air data product backlog as of September 30, 2017 increased \$1.1 million from September 30, 2016, and FPDS backlog as of September 30, 2017 decreased by \$2.6 million from September 30, 2016, reflecting decreased FPDS sales during 2017. The backlog excludes potential future sole-source production orders from products developed under the Company's EDC programs, including the Pilatus PC-24, and the KC-46A, all of which the Company expects to enter into extended production phases. Although the Company believes that the orders included in backlog are firm, most of the backlog involves orders that can be modified or terminated by the customer. As of September 30, 2017, none of the Company's backlog was expected to be filled beyond fiscal 2018.

Table of Contents

Engineering Development

The Company invests a large percentage of its sales on engineering development, both R&D and EDC. At September 30, 2017, approximately 31% of the Company's employees were engineers engaged in various engineering development projects. Total engineering development expense is comprised of both internally funded R&D and product development and design charges related to specific customer contracts. Engineering development expense consists primarily of payroll-related expenses of employees engaged in EDC projects, engineering related product materials and equipment, and subcontracting costs. R&D charges incurred for product design, product enhancements, and future product development are expensed as incurred. Product development and design charges related to specific customer contracts are charged to cost of sales-EDC based on the method of contract accounting (either percentage-of-completion or completed contract) applicable to such contracts.

Sales and Marketing

IS&S focuses its sales efforts on passenger and cargo carrying aircraft operators, general aviation operators, aircraft modification centers, the DoD, DoD contractors, and OEMs. Periodically, the Company evaluates its sales and marketing efforts with respect to these focus areas and, where appropriate, makes use of third-party sales representatives who receive compensation through commissions based on performance. We currently have eight representatives worldwide that are actively selling IS&S products.

We are continuing to expand our maintenance, repair and overhaul (MRO) dealer network to address worldwide markets for Boeing 737, 757 and 767, Pilatus PC-12's, Beechcraft King Air models and other aircraft types. We have added major MRO's like Lufthansa Technik AG in 2016 and Western Aircraft, LevAero, Pro Star Aviation and Epps Aviation in 2017, and we are in the process of exploring adding more MRO dealerships in Australia, Brazil, Spain, Switzerland and the United States.

Our marketing efforts have focused on applicable markets using social media, email campaigns, advertisements, trade shows and direct mailers. Our Autothrottle offering on the Pilatus PC-12 has been favorably featured in multiple articles in major publications over the past year.

The Company's believe its ability to provide prompt and effective repair and upgrade service is critical to its marketing efforts. The Company's customer service program offers a 24-hour customer hotline. The Company services its customers utilizing either field service engineers or its in-house repair and upgrade facility. The Company may lend spare units to customers when it is repairing or overhauling their equipment. IS&S provides customers with a standard two-year warranty on new products. The Company offers customers extended warranties of varying lengths beyond the two years for additional fees.

The majority of the Company's sales, personnel and assets are within the United States. In fiscal year 2017, 2016 and 2015 net sales outside the United States amounted to \$2.6 million, \$8.2 million and \$6.6 million, respectively.

Table of Contents

Government Regulation

FAA regulations govern the manufacture and installation of the Company's products in aircraft owned and operated in the United States, and the IS&S facility is FAA certified. The most significant product and installation regulations are Technical Standard Orders (TSOs) and Supplemental Type Certificate (STCs), which establish the minimum operational performance standards. For example, in March 2015 and July 2015, respectively, the FAA issued its TSO authorization and STC for the Company's B757 Integrated Standby Unit to be used on B757 aircraft in the United States, and in December 2014, the FAA issued a TSO and STC to IS&S for a high definition Integrated Flat Panel Display System for use on Pilatus PC-12 type aircraft in the United States.

Generally, sales of IS&S products to European or other non-U.S. owners of aircraft require approval of European Aviation Safety Agency (EASA), or other relevant governmental agencies. EASA certification requirements for the manufacture and installation of the Company's products in European owned aircraft mirror FAA regulations, and its process for European certification is similar to that of the FAA. For example, in August 2015, the EASA issued an STC on the Company's B757 Integrated Standby Unit to be used on B757 aircraft in the European Community.

In addition to product related regulations, IS&S is subject to U.S. Government procurement regulations with respect to the sale of the Company's products to government entities or government contractors. The government agency or general contractor retains the right to terminate a contract at any time at its convenience. Upon such alteration or termination, IS&S is generally entitled to an equitable adjustment to the contract price so that the Company receives the purchase price for products or services already delivered and reimbursement for allowable costs incurred and for termination related costs.

Manufacturing, Assembly and Materials Acquisition

The Company's manufacturing activities consist primarily of assembling and testing components and subassemblies, and integrating them into finished systems. Typically, the Company purchases components for products from third-party suppliers and assembles them in a clean room environment. Many of the components purchased are standard products, although certain parts are made to the Company's specifications.

When appropriate, IS&S enters into long-term supply agreements and uses its relationships with long-term suppliers to improve product quality and availability, and to reduce delivery times and product costs. In addition, the Company identifies alternative suppliers for important component parts. Generally, the introduction of component parts from new suppliers into existing products requires FAA certification of the entire finished product if the newly sourced component varies significantly from the original drawings and specifications. IS&S has not experienced significant delays in delivery of products caused by the inability to obtain either component parts or FAA approval of products incorporating new component parts.

Quality Assurance

Product quality is of vital importance. The Company is ISO 9001 and AS9100C certified. These standards represent an international consensus on effective management practices with the goal of ensuring that a company can deliver its products and related services consistently in a manner that meets or exceeds customer quality requirements. IS&S's certification to these standards allows the Company to represent to customers that it maintains high quality industry standards in the education of its employees, and in the design and manufacture of its products. In addition, the Company's products undergo extensive and documented quality control testing prior to being delivered to customers.

Competition

The market for the Company's products is highly competitive. Competitors vary in size and resources, and substantially all of the Company's competitors are much larger than IS&S and have substantially greater resources. With respect to air data systems and related products, the Company's principal competitors include Honeywell International Inc. (Honeywell), Rockwell Collins, Inc., Thales Communications, Inc. (Thales), and Garmin Ltd. (Garmin). With respect to flat panel displays, principal competitors currently include Honeywell, Rockwell Collins, Inc., L-3 Communications, Garmin and GE Aviation Systems (GEAS). However, as the flat panel display industry evolves and the demand for flat panel displays increases, IS&S may face future competition in this area from other suppliers.

The Company believes that the principal competitive factors in its markets are cost, development cycle time, responsiveness to customer preferences, product quality, technology, and reliability. IS&S believes that its significant and long-standing customer relationships reflect the Company's ability to compete favorably with respect to these factors.

Table of Contents

Intellectual Property and Proprietary Rights

IS&S relies on patents to protect its proprietary technology. As of September 30, 2017, the Company holds 39 U.S. patents and has 8 U.S. patent applications pending relating to its technology. In addition, IS&S holds 78 international patents and has 24 international patent applications pending. Certain of these patents and patent applications cover technology relating to air data measurement systems and others cover technology relating to flat panel display systems and other aspects of the COCKPIT/IP® solution. While IS&S believes these patents have significant value in protecting its technology, it believes that the innovative skill, technical expertise, and know-how of the Company's personnel in applying the technology reflected in its patents would be difficult, costly, and time consuming to reproduce.

While IS&S is not aware of any pending lawsuits against the Company alleging patent infringement or the violation of other intellectual property rights, it cannot be certain such infringement claims will not be asserted against the Company in the future.

Employees

As of September 30, 2017, IS&S had 93 employees. The Company's future success depends on its ability to attract, train and retain highly qualified personnel. Competition for such qualified personnel is intense, and the Company may not be able to attract, train, and retain highly qualified personnel in the future. None of the Company's employees are currently represented by a labor union.

Executive Officers of the Registrant

The following is a list of the Company's executive officers, their ages and their positions in each case.

Name	Age	Position
Geoffrey S. M. Hedrick	75	Chairman of the Board and Chief Executive Officer
Shahram Askarpour	60	President
Relland M. Winand	63	Chief Financial Officer

Geoffrey S. M. Hedrick was the Chief Executive Officer from the time he founded the Company in February 1988 through June 4, 2007, and was reappointed as Chief Executive Officer on September 8, 2008. He has been Chairman of the Board since 1997. Prior to founding IS&S, Mr. Hedrick served as President and Chief Executive Officer of Smiths Industries North American Aerospace Companies. He founded Harowe Systems, Inc. in 1971, which was subsequently acquired by Smiths Industries. Mr. Hedrick has over 40 years of experience in the avionics industry, and he holds a number of patents in the electronics, optoelectric, electromagnetic, aerospace, and contamination control fields.

Shahram Askarpour has been President since April 2012. Dr. Askarpour joined the Company as a Director of Engineering in 2003, was promoted to Vice President of Engineering in 2005, and was promoted to President on April 2, 2012. Dr. Askarpour has more than 30 years of aerospace industry experience in managerial and technical positions. Prior to joining IS&S, he was employed by Smiths Aerospace (a division of Smiths Group PLC), Instrumentation Technology and Marconi Avionics. He holds a number of key patents in the aviation field. Dr. Askarpour received his engineering education in the United Kingdom, and received an undergraduate degree in Electrical Engineering from Middlesex University, a post graduate Certificate of Advanced Study in Systems Engineering, and a PhD in Automatic Control from Brunel University. He was awarded the title of Associate Research Fellow for three consecutive years by Brunel University, and has published numerous papers in leading international, peer reviewed journals. In addition, he has completed management courses at Carnegie Mellon University and finance courses at the Wharton Business School.

Relland M. Winand has been the Company's Chief Financial Officer since December 15, 2014. Mr. Winand has served in a number of executive financial capacities with public companies including Chief Financial Officer of ECC International, Corp, a manufacturer of computer controlled maintenance simulators primarily for the Department of Defense, and Vice President Finance and Administration of Traffic.com, Inc. a leading provider of accurate, real-time traffic information in the United States. Prior to joining Innovative Solutions and Support, Inc., from 2008 to 2013, Mr. Winand was Chief Financial Officer of Orbit/FR, Inc., an international developer and manufacturer of sophisticated microwave test and measurement systems for aerospace/defense, wireless, satellite and automotive industries. From January 2014 until August 2014, Mr. Winand served as a consultant for Solomon Edwards Group LLC. He has over 30 years' experience in financial management and reporting for both public domestic and international manufacturing companies. Mr. Winand received a B.S. in Accounting from Drexel University and an M.B.A. in Finance from Widener University.

Table of Contents

Other

The public may read and copy any materials filed by IS&S with the SEC at the SEC's public reference room located at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information about the operation of the SEC's public reference rooms by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at <http://www.sec.gov> that contains reports, proxy and information statements, and other information about issuers that file electronically with the SEC.

IS&S maintains its corporate website at <http://www.innovative-ss.com> and makes available, free of charge, on that website (under the "Investor Relations" tab) the Company's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those as reasonably practicable after it electronically files such material with, or furnishes it to, the SEC. The information on the Company's web site is not incorporated as part of this Annual Report on Form 10-K.

Item 1A. Risk Factors.

Each reader should carefully consider the risks, uncertainties and other factors described below, in addition to the other information set forth in this report, because they could materially and adversely affect the Company's business, operating results, financial condition, cash flows, prospects, and the value of an investment in IS&S common stock.

Risks Related to IS&S Business

Growth of the Company's customer base could be limited by delays or difficulties in completing development and introduction of planned products or product enhancements. If IS&S fails to enhance existing products, or to develop and achieve market acceptance for flat panel displays, flight management systems and other new products that meet customer requirements, its business, reputation and statements of operations may be affected adversely.

Currently, IS&S spends a large portion of its R&D efforts in developing and marketing the FPDS, FMS, ThrustSense Autothrottle and complementary products. The Company's ability to grow and diversify its operations through introduction and sale of new products is dependent upon the continued success in product development and engineering activities, its sales and marketing efforts, and regulatory approvals to sell such products. Sales growth will depend in part on market acceptance of and demand for the FPDS, FMS, and future products. IS&S cannot be certain that it will be able to develop, introduce or market its FPDS, FMS, or other new products or product enhancements in a timely or cost-effective manner, or that any new products will receive market acceptance or necessary regulatory approval. In addition, the Company's business is dependent upon maintaining its reputation and relationships with existing customers. If the Company's performance does not meet its customers' expectations, the Company's reputation and its relationships could be damaged, which may have a material adverse impact on the Company's business and statements of operations, including reductions in sales.

In seeking new customers, the Company may have difficulty in displacing the products of incumbent competitors. IS&S cannot be assured that potential customers will accept its products or that existing customers will not abandon them.

The Company's revenue and operating results may vary significantly from quarter to quarter, which may cause its stock price to decline.

The Company's revenue and operating results may vary significantly from quarter to quarter because of a number of factors, including:

- demand for products and/or delivery schedule changes by its customers;
- capital expenditure budgets of aircraft owners and operators, and appropriation cycles of the U.S. government;
- changes in the use of the Company's products, including air data systems, flat panel displays, and flight management systems;
- delays in introducing or obtaining government approval for new products;
- new product introductions by competitors;
- changes in IS&S pricing policies or pricing policies of competitors; and
- costs related to possible acquisition of technologies or businesses.

Table of Contents

The loss of a key customer or a significant deterioration in the financial condition of a key customer could have a material adverse effect on the Company's results of operations.

The Company's revenue is concentrated with a limited number of customers. During fiscal year 2017 IS&S derived 54% of revenue from the top five customers. IS&S expects a relatively small number of customers to account for a majority of its revenues for the foreseeable future. As a result of the concentrated customer base, a loss of one or more of these customers or a dispute or litigation with one of these key customers could affect adversely its revenue and results of operations. The Company monitors and evaluates the credit status of its customers and attempts to adjust sales terms as appropriate. Despite these efforts, a significant deterioration in the financial condition or bankruptcy filing of a key customer could affect adversely the Company's business, results of operations, and financial condition.

Contracts can be terminated by customers at any time and, therefore, may not result in sales.

The Company's retrofit projects are generally pursuant to either a direct contract with a customer or a subcontract with a general contractor to a customer (including government agencies). Each contract, including contracts with government agencies, includes various terms and conditions that impose certain requirements on IS&S, including the ability of the government agency or general contractor to alter the price, quantity or delivery schedule of the products. Additionally, each government agency or general contractor retains the right to terminate the contract at any time at its convenience. Upon alteration or termination of these contracts, IS&S is entitled typically to an equitable adjustment to the contract price so that it would be compensated for delivered items and allowable costs incurred. Accordingly, because these contracts can be terminated, the Company cannot be assured that its backlog will result in sales. For example, in October 2014, Delta issued a cancellation notice to the Company purporting to terminate its contract with IS&S resulting in \$61.9 million of debookings with respect thereto.

The Company enters into fixed-price contracts or service arrangements to perform specified design and EDC services related to its products that could subject IS&S to losses in the event the Company incurs cost overruns on its projects.

During fiscal 2017, approximately 4% percent of the Company's total sales were from fixed-price EDC arrangements with customers to perform specified design and EDC services related to its products. These arrangements allow IS&S to benefit by recovering some of its product development costs, but it carries the risk of potential cost overruns. If the Company's initial cost estimates are incorrect, it can incur potentially large one time charges and losses on these contracts. These EDC arrangements can expose the Company to potential losses because the customer may compel IS&S to complete a project or, in the event of a termination for default, pay the incremental cost of its replacement by another provider. Because some of these projects involve new technologies and applications, and can last for more than a year, unforeseen events such as technological difficulties, fluctuations in the price of raw materials, problems with subcontractors, and cost overruns can result in the contractual price becoming less favorable or even unprofitable to IS&S over time. Furthermore, if the Company does not meet project deadlines or if its products do not meet customer specifications, it may need to renegotiate contracts on less favorable terms, be forced to pay penalties or liquidated damages, or suffer losses if the customer exercises its right to terminate. The Company's results of operations are dependent on its ability to maximize earnings from the EDC service arrangements. Lower earnings caused by cost overruns could have a negative impact on the Company's financial condition, operating results, and cash flows.

Reductions in government expenditures could adversely affect IS&S business.

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Reductions in funding of the DoD and U.S. defense spending could have significant consequences to the Company's business and industry. While the full impact of such reductions is not determinable, the impact of any resulting reductions in defense appropriations, and/or reductions in U.S. defense spending could result in delays in procurement of products and services due to lack of funding, and negatively affect the IS&S's revenues, financial condition and results of operations.

Volatility and weakness in capital markets may adversely affect credit availability and related financing costs, which could adversely affect IS&S.

Bank and capital markets can experience periods of volatility and disruption. During these periods of volatility and disruption, risks to IS&S include:

- declines in revenues and profitability from reduced orders, payment delays or other factors caused by the economic
- problems of customers;
- reprioritization of government spending away from defense programs in which IS&S participates;

Table of Contents

- reduced access to credit sources; and
- disruptions in supplies associated with any financial constraints faced by vendors.

A portion of IS&S sales come from government contracts, which could be adversely affected by continued high U.S. federal budget deficits.

A portion of IS&S sales has been, and is expected to continue to be, from defense contractors or government agencies in connection with government aircraft retrofit or original equipment manufacturing contracts. Sales to government contractors and government agencies could decline as a result of DoD spending cuts and general budgetary constraints which may become more severe as the federal budget deficit remains high.

We self-insure a significant portion of our employee medical insurance program, which may expose us to unpredictable costs and negatively affect our financial performance.

We self-insure a significant portion of our employee medical insurance program and related benefit claims. The estimated liability for the self-funded portion of our insurance program is determined actuarially, based on claims filed historically, demographic factors and an estimate of claims incurred but not yet reported. We maintain stop loss insurance coverage to limit our exposure for the self-funded portion of our health insurance program both on a per employee and aggregate basis, and liabilities associated with these losses include estimates of both claims filed and losses incurred but not yet reported. Unanticipated changes in any applicable actuarial assumptions or management estimates underlying our recorded liabilities for these losses could result in materially different amounts of expense than expected under these programs, which could have a material adverse effect on our financial condition and results of operations. In addition, the premiums for this coverage could increase in the future, or we could be forced to raise our self-insured retention amounts. If these expenses increase, or if we experience a claim in excess of our reserve and/or coverage limits, it could also have a material adverse effect on our financial condition and results of operation.

IS&S depends on key personnel to manage its business effectively, and an inability to retain its key employees could adversely impact the Company's ability to compete.

The Company's success depends on the efforts, abilities, and expertise of its senior management and other key personnel. There can be no assurance IS&S will be able to retain such employees, and the loss of some could damage its ability to execute its business strategy. The Company intends to continue hiring key management, engineering, and sales and marketing personnel. Competition for skilled personnel is intense, and IS&S may not be able to attract or retain additional qualified personnel.

The Company's future success will depend in part on its ability to implement and improve its operational, administrative and financial systems and controls and to manage, train and expand its employee base. IS&S cannot provide assurance that, after giving effect to its cost containment initiatives, that current and planned personnel levels, systems, procedures, and controls will be adequate to support the current and future

customer base. In such a circumstance, the Company may not be able to exploit existing and potential market opportunities. Any delays or difficulties encountered could impair the Company's ability to attract new customers or maintain its relationships with existing customers.

IS&S relies on third party suppliers for components of its products, and any interruption in the supply of these components could hinder its ability to deliver products on a timely basis.

The Company's manufacturing process consists primarily of assembling components purchased from its supply chain. The suppliers may not continue to be available to IS&S. If the Company is unable to maintain relationships with key third party suppliers, the development and distribution of its products could be delayed until equivalent components can be obtained and integrated into the products. In addition, substitution of certain components from other manufacturers may require product redesign, FAA or other approval, which could delay the Company's ability to ship products.

If the Company fails to maintain an effective system of internal control over financial reporting, it may not be able to accurately report its financial condition, results of operations or cash flows, which may adversely affect investor confidence in the Company and, as a result, the value of the Company's common stock.

The Sarbanes-Oxley Act of 2002, as amended (the Sarbanes-Oxley Act) requires, among other things, that the Company maintain effective internal controls for financial reporting and disclosure controls and procedures. Under Section 404 of the Sarbanes-Oxley Act, the Company is required to furnish a report by management on, among other things, the effectiveness of the Company's internal control over financial reporting. This assessment must include disclosure of any material weaknesses identified by management in the

Table of Contents

Company's internal control over financial reporting. A material weakness is a control deficiency, or combination of control deficiencies, in internal control over financial reporting that results in more than a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis.

The Company's compliance with Section 404 requires that it compile the system and process documentation necessary to perform an appropriate evaluation. During the evaluation and testing process, if the Company identifies one or more material weaknesses in its internal control over financial reporting, it will be unable to assert that its internal control over financial reporting is effective. The Company cannot assure you that there will not be material weaknesses or significant deficiencies in its internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit the Company's ability to accurately report its financial condition, results of operations or cash flows. If the Company is unable to conclude that its internal control over financial reporting is effective, or if its independent registered public accounting firm determines the Company has a material weakness or significant deficiency in its internal control over financial reporting, the Company could lose investor confidence in the accuracy and completeness of its financial reports, the market price of its common stock could decline, and it could be subject to sanctions or investigations by NASDAQ, the Securities and Exchange Commission or other regulatory authorities. Failure to remedy any material weakness in the Company's internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict the Company's future access to the capital markets.

We currently operate without a substantial backlog.

During periods of economic uncertainty, the rate of customer orders can quickly decrease, and a substantial backlog may help promote greater efficiency in production, facilitate business planning and improve revenue visibility. As of September 30, 2017, none of the Company's backlog was expected to be filled beyond fiscal 2018, which is below the Company's historical expectations. As a result, future revenue will be dependent on orders booked and shipped in that quarter, and may not be predictable with any degree of certainty. Furthermore, certain contracts may represent a significant portion of our revenue and profits for a quarter such that the loss or deferral of even one such contract could adversely affect our revenue and profitability.

Litigation with customers, employees and others could harm our reputation and impact operating results.

In the ordinary course of business, we may be involved in lawsuits and regulatory actions with customers, employees and others. Additionally, we may be subject to employment-related claims alleging discrimination, harassment, wrongful termination and wage issues, including those relating to overtime compensation. We are susceptible to claims filed by customers alleging responsibility for breaches of contract or from product defects, and we are also subject to lawsuits filed by patent holders alleging patent infringement. These types of claims, as well as other types of lawsuits to which we are subject from time to time, can distract management's attention from core business operations and impact operating results, particularly if a lawsuit results in an unfavorable outcome, or could harm the Company's reputation with customers, employees, investors and others.

Table of Contents

The Company's competition includes other manufacturers of air data systems and flight information displays against whom it may not be able to compete successfully.

The markets for the Company's products are intensely competitive and subject to rapid technological change. Competitors include Honeywell, Rockwell Collins, Inc., Thales, Garmin, GEAS, and L-3 Communications. All these competitors have substantially greater financial, technical, and human resources than does IS&S. In addition, these competitors have much greater experience in and resources for marketing their products. As a result, these competitors may be able to respond more quickly to new or emerging technologies and customer preferences, or to devote greater resources to development, promotion and sale of their products than IS&S can. The Company's competitors may have greater name recognition and more extensive customer bases. Such competition could result in price reductions, fewer customer orders, reduced gross margins, and loss of market share.

The Company's success depends on its ability to protect its proprietary rights against potential risk of infringement. If IS&S is unable to protect and enforce its intellectual property rights, it may be unable to compete effectively.

The Company's success and ability to compete will depend in part on its ability to obtain and maintain patent or other protection for its technology and products, both in the United States and internationally. In addition, IS&S must operate without infringing the proprietary rights of others.

As of September 30, 2017, IS&S held 39 U.S. patents and has 8 U.S. patent applications pending. In addition, the Company holds 78 international patents and has 24 international patent applications pending. IS&S cannot be certain that patents will be issued on any of its present or future applications. In addition, existing patents or future patents may not adequately protect the Company's technology if they are not broad enough and are successfully challenged, or if other entities are able to develop competing methods without violating its patents. If IS&S is not successful in protecting its intellectual property, competitors could begin to offer products that incorporate the Company's technology. Patent protection involves complex legal and factual questions, and, therefore, is highly uncertain. Litigation relating to intellectual property is often very time consuming and expensive. If a successful claim of patent infringement were made against IS&S, and if the Company were unable to develop non-infringing technology, or to license the infringed or similar technology on a timely and cost-effective basis, the Company might not be able to produce and sell some of its products. Further, IS&S has incurred, and may continue to incur, significant legal and other costs in defense of its intellectual property.

A cyber security incident or other technology disruption could have a negative impact on our business.

We face certain security threats and technology disruptions, including threats to our information technology (IT) infrastructure, attempts to gain access to our or our customers' proprietary or classified information, threats of terrorism events, and failures of our technology tools and systems. Our IT networks and related systems are critical to the operation of our business and essential to our ability to successfully perform day-to-day operations. We are also involved with information technology systems for certain customers and other third parties, for which we face similar security threats as for our own, in particular the DoD. In particular, cybersecurity threats-which include, but are not limited to, computer viruses, spyware and malware, attempts to access information, denial of service attacks and other electronic security breaches-are persistent and evolve quickly. In general, such threats have increased in frequency, scope and potential impact in recent years. Further, a variety of technological tools and systems, including both company-owned IT and technological services provided by outside parties, support our critical functions. These technologies, as well as our products, are subject to failure and the user's inability to have such technologies properly supported, updated, expanded or integrated into other technologies and, in certain cases, may contain open source and third party software which may unbeknownst to us contain defects or viruses that pose unintended risks. These risks, if not effectively mitigated or controlled, could materially harm our

business or reputation. While we believe that we have implemented appropriate measures and controls, there can be no assurance that such actions will be sufficient to prevent disruptions to critical systems, unauthorized release of confidential information or corruption of data.

The security measures we have implemented are subject to third-party security breaches, employee error, malfeasance, faulty password management or other irregularities. For example, third parties may attempt to fraudulently induce employees or customers into disclosing user names, passwords or other sensitive information, which may in turn be used to access our IT systems. These security systems cannot provide absolute security. To the extent we were to experience a breach of our systems and were unable to protect sensitive data, such a breach could materially damage business partner and customer relationships, and curtail or otherwise impact the use of our information technology systems. Moreover, if a security breach of our information technology system affects our computer systems or results in the release of personally identifiable or other sensitive information of customers, business partners, employees and other third parties, our reputation and brand could be materially damaged, use of our products and services could decrease, and we could be exposed to a risk of loss, litigation and potential liability.

Table of Contents

Such an event could require significant management attention and resources, negatively impact our reputation among our customers and the public and challenge our eligibility for future work on sensitive or classified systems, which could have a material adverse effect on our business, financial condition and results of operations.

Tax changes, including potential tax reform in the United States, could affect the Company's effective tax rate and future profitability.

The Company's future results could be affected negatively by changes in the effective tax rate as a result of changes in the overall profitability and changes to statutory tax rates in the United States, changes in tax legislation, and the results of audits and examinations of previously filed tax returns.

In November 2017, the U.S. House of Representatives passed the Tax Cuts and Jobs Act (H.R. 1) and, in December 2017, the U.S. Senate passed a revised version of the Tax Cuts and Jobs Act (together with any amended versions, the Tax Reform Bills). Either of the Tax Reform Bills, or any likely compromise version of the Tax Reform Bills, would make significant changes to the U.S. income tax rules applicable to both individuals and entities, including corporations. There is significant uncertainty as to the likelihood, timing, or details of any Tax Reform Bill being enacted and the impact of any such Tax Reform Bill on the Company.

A variety of tax reform proposals that could impact U.S. taxation of corporations are under consideration, including amendments to the applicability of the alternative minimum tax, reductions in research and development tax credits, reductions in the amount of executive pay that qualify for deduction and reductions in the U.S. corporate income tax rate. We cannot predict which, if any, of these proposals will be enacted into law in the final version of the Tax Reform Bill, if any. If a Tax Reform Bill were enacted, it could have a material effect on our financial statements and after-tax financial results.

The economic effects of Brexit may affect relationships with existing and future customers and could have an adverse impact on our business and operating results.

On June 23, 2016, the United Kingdom (the U.K.) held a referendum in which voters approved an exit from the European Union (E.U.), commonly referred to as Brexit. The referendum is non-binding; however, it is expected to be passed into law, after which negotiations will commence to determine the future terms of the U.K.'s relationship with the E.U. The impact on the Company's business as a result of Brexit will depend, in part, on the outcome of tariff, trade, regulatory and other negotiations.

As a result of the referendum, the global markets and currencies have been adversely impacted, including a sharp decline in the value of the British pound as compared to the U.S. dollar. A potential devaluation of the local currencies of our international customers relative to the U.S. dollar may impair the purchasing power of our international customers and could cause international customers to decrease their volume of orders or cancel orders completely.

Volatility in exchange rates resulting from Brexit is expected to continue in the short term as the U.K. negotiates its exit from the E.U. We translate sales and other results denominated in foreign currency into U.S. dollars for our financial statements. During periods of a strengthening

dollar, our reported international sales and earnings could be reduced because foreign currencies may translate into fewer U.S. dollars.

In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which E.U. laws to replace or replicate, and those laws and regulations may be cumbersome, difficult or costly in terms of compliance. Any of these effects of Brexit, among others, could adversely affect our business, financial condition, operating results and cash flows.

Risks Related to the Company's Industry

If IS&S is unable to respond to rapid technological change, its products could become obsolete and its reputation could suffer.

Future generations of flat panel displays, air data systems, engine and fuel displays, and flight management systems which embody new technologies or new industry standards could render the Company's products obsolete. The market for aviation products is subject to rapid technological change, new product introductions, changes in customer preferences, and evolving industry standards and government regulations. The Company's future success will depend on its ability to:

- embrace rapidly changing technologies;
- adapt the Company's products to evolving industry standards and government regulations; and
- develop and introduce timely, high quality, cost effective new products, and product enhancements to address the increasingly sophisticated needs of its customers.

Table of Contents

If IS&S fails to modify or improve its products in response to evolving industry standards and government regulations, its products could rapidly become obsolete.

The Company's products are currently subject to direct regulation by the FAA and other equivalent organizations. The Company's products, as they relate to aircraft applications, must be approved by the FAA, EASA, or other equivalent organizations before they can be installed in an aircraft. To be certified, IS&S must demonstrate that its products are accurate and able to maintain certain levels of repeatability over time. Although certification requirements of the FAA and EASA are substantially similar, no formal reciprocity exists between the two regulators. Accordingly, even though the Company's products are FAA approved, it may need to obtain approval from EASA or other appropriate organizations to have them certified for installation outside the United States.

Significant delay in receiving certification for newly developed products or enhancements to the Company's products, or the loss of certification for its existing products, could result in lost sales or delays in sales. Furthermore, new regulations or product standards, and changes to existing product standards could require IS&S to change its products and underlying technology. IS&S cannot ensure that it will receive regulatory approval on a timely basis or at all.

Inasmuch as the Company's products utilize sophisticated technology and are deployed in complex aircraft cockpit environments, problems with these products may arise that could harm the Company's reputation for quality assurance and, consequently, its business prospects.

The Company's products use complex system designs and components that may contain errors, omissions, or defects, particularly when the Company incorporates new technologies into its products or when it releases new versions or enhancements of its existing products. Despite the Company's quality assurance process, errors, omissions or defects could occur in its current products, in new products, or in new versions or enhancements of existing products. IS&S may be required to redesign or recall those products or pay damages. Such an event could result in the following:

- delay or loss of revenues;
- cancellation of customer contracts;
- diversion of development resources;
- damage to the Company's reputation;

- increased service and warranty costs; or
- litigation costs.

Although IS&S carries product liability insurance, this insurance may not be adequate to cover its losses in the event of a large product liability claim. In addition, IS&S may not be able to maintain such insurance in the future.

Table of Contents

The Company has limited experience in marketing and distributing its products internationally.

IS&S plans to derive increasing revenues from sales outside the United States, particularly in Europe. Risks inherent in doing business internationally include:

- differing regulatory requirements;
- legal uncertainty regarding liability;
- tariffs, trade barriers, and other regulatory barriers;
- political and economic instability;
- changes in diplomatic and trade relationships;
- potentially adverse tax consequences;
- the impact of recessions in economies outside the United States; and
- variances and unexpected changes in local laws and regulations.

Currently, all of the Company's international sales are denominated in U.S. dollars. An increase in the dollar's value compared to other currencies could render its products less competitive in the international markets. In the future, IS&S may be required to conduct sales in the foreign country's local currency, thus exposing the Company to fluctuations and volatility in exchange rates that could adversely affect its operating results.

Item 1B. Unresolved Staff Comments.

None

Item 2. Properties.

In fiscal 2001, IS&S purchased 7.5 acres of land in the Eagleview Corporate Park in Exton, Pennsylvania. Shortly thereafter, the Company constructed a 45,000 square foot design, manufacturing and office facility on this site. Land development approval allows for expansion of up to 20,400 square feet. Such expansion would provide for a 65,400 square foot facility which the Company believes is adequate to meet the needs of the Company for the foreseeable future.

The Company also occupies approximately 8,358 square feet of office and warehouse space in Exton, Pennsylvania under a lease expiring March, 2018. The lease contains two options to extend the lease for a total of six additional years. The Company's current annual lease expense for this property is approximately \$61,000.

The Company leases a hanger to house the Company's airplane in New Castle County, Delaware under a month to month lease. The annual lease expense is \$21,000.

Item 3. Legal Proceedings.

In the ordinary course of business, IS&S is at times subject to various legal proceedings and claims. The Company does not believe any such matters that are currently pending will, individually or in the aggregate, have a material effect on the results of operations or financial position.

Item 4. Mine Safety Disclosures.

Not applicable.

Table of Contents

Part II

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

The Company's common stock has been traded on the NASDAQ Stock Market, LLC under the symbol "ISSC" since its initial public offering on August 4, 2000. The following table lists the high and low per share sale prices for the common stock for the periods indicated:

Period	Fiscal Year 2017				Fiscal Year 2016			
	High	Low	High	Low	High	Low	High	Low
First Quarter	\$ 3.99	\$ 2.61	\$ 2.95	\$ 2.27				
Second Quarter	4.36	2.93	2.92	2.35				
Third Quarter	4.54	2.85	3.06	2.55				
Fourth Quarter	4.52	3.13	3.35	2.58				

On November 15, 2017, there were 12 holders of record of the shares of outstanding common stock. This total does not reflect beneficial shareholders who hold their stock in nominee or street name through brokerage firms.

The Company did not pay dividends in fiscal 2017 or fiscal 2016. The declaration and payment of any dividend in the future will be at the discretion of the Company's Board of Directors.

The graph below shows the cumulative shareholder return on \$100 invested at the market close on September 30, 2012 through and including September 29, 2017, the last trading day before the end of the Company's most recently completed fiscal year, with the cumulative total return over the same time period of the same amount invested in the NASDAQ Composite Index, the Russell 2000 Index, and the Dow Jones US Aerospace & Defense Index.

Table of Contents

	9/12	9/13	9/14	9/15	9/16	9/17
Innovative Solutions and Support, Inc.	100.00	287.72	188.50	97.95	115.30	131.57
NASDAQ Composite	100.00	123.38	148.79	154.52	178.82	220.25
Russell 2000	100.00	130.06	135.17	136.85	158.02	190.80
Dow Jones US Aerospace & Defense	100.00	145.78	173.51	178.96	208.99	300.95

Item 6. Selected Consolidated Financial Data.

The following tables present portions of the Company's consolidated financial statements. The following selected consolidated financial data set forth below should be read together with Management's Discussion and Analysis of Financial Condition and Results of Operations and the consolidated financial statements and related notes to the consolidated financial statements appearing elsewhere herein. The selected statement of operations data for the fiscal years ended September 30, 2017, 2016 and 2015 and the balance sheet data as at September 30, 2017 and 2016 are derived from the Company's audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The selected statements of operations data for the fiscal years ended September 30, 2014 and 2013 and the balance sheet data as at September 30, 2015, 2014 and 2013 are extracted from the Company's audited consolidated financial statements that are not included in this Annual Report on Form 10-K.

Table of Contents

	Fiscal year ended September 30,				
	2017	2016	2015	2014	2013
Statements of Operations Data:					
Net sales	\$ 16,786,674	\$ 27,969,703	\$ 20,067,084	\$ 44,095,023	\$ 31,567,307
Cost of sales	8,668,348	11,482,323	13,135,349	30,508,823	18,942,737
Gross profit	8,118,326	16,487,380	6,931,735	13,586,200	12,624,570
Research and development	4,456,657	4,873,328	2,705,208	2,618,054	2,578,034
Selling, general and administrative	3,739,234	9,170,865	7,847,270	11,111,014	8,119,071
Total operating expenses	8,195,891	14,044,193	10,552,478	13,729,068	10,697,105
Operating (loss) income	(77,565)	2,443,187	(3,620,743)	(142,868)	1,927,465
Interest income, net	35,888	33,504	24,804	21,756	41,174
Other income	4,858,224	78,440	33,283	37,758	38,120
Income (loss) before income taxes	4,816,547	2,555,131	(3,562,656)	(83,354)	2,006,759
Income tax expense (benefit)	247,920	568,330	2,303,478	(283,622)	119,842
Net income (loss)	\$ 4,568,627	\$ 1,986,801	\$ (5,866,134)	\$ 200,268	\$ 1,886,917
Net income (loss) per common share:					
Basic	\$ 0.27	\$ 0.12	\$ (0.35)	\$ 0.01	\$ 0.11
Diluted	\$ 0.27	\$ 0.12	\$ (0.35)	\$ 0.01	\$ 0.11
Cash dividends declared per common share					
	\$	\$	\$	\$	\$ 1.50
Weighted average shares outstanding:					
Basic	16,742,461	16,927,055	16,924,189	16,927,879	16,753,068
Diluted	16,855,644	17,039,296	16,924,189	17,149,106	16,855,854

	As of September 30,				
	2017	2016	2015	2014	2013
Balance Sheet Data:					
Cash and cash equivalents	\$ 24,680,301	\$ 18,767,661	\$ 16,282,039	\$ 15,214,584	\$ 16,386,207
Working capital	30,819,796	25,796,195	23,654,719	26,274,806	25,942,235
Total assets	41,037,764	36,488,969	36,106,569	44,029,511	42,498,309
Total shareholders equity	37,608,380	32,848,004	31,342,486	37,011,524	35,994,247

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

The following discussion and analysis should be read in conjunction with Selected Consolidated Financial Data and the consolidated financial statements and related notes included in this report.

Overview

Innovative Solutions and Support, Inc. (the Company, IS&S, we or us) was incorporated in Pennsylvania on February 12, 1988. The Company operates in one business segment as a systems integrator that designs, develops, manufactures, sells, and services, air data equipment, engine display systems, standby equipment, primary flight guidance, autothrottles and cockpit display systems for retrofit applications and original equipment manufacturers (OEMs). The Company supplies integrated Flight Management Systems (FMS), Flat Panel Display Systems (FPDS), FPDS with Autothrottle, air data equipment, Integrated Standby Units (ISU), ISUs with Autothrottle and advanced Global Positioning

System (GPS) receivers that enable reduced carbon footprint navigation.

Table of Contents

The Company has continued to position itself as a system integrator, which capability provides the Company with the potential to generate more substantive orders over a broader product base. The strategy, as both a manufacturer and integrator, is designed to leverage the latest technologies developed for the computer and telecommunications industries into advanced and cost-effective solutions for the general aviation, commercial air transport, United States Department of Defense (DoD)/governmental, and foreign military markets. This approach, combined with the Company's industry experience, is designed to enable IS&S to develop high quality products and systems, to reduce product time to market and to achieve cost advantages over products offered by its competitors.

The Company sells to both the OEM and the retrofit markets. Customers include various OEMs, commercial air transport carriers and corporate/general aviation companies, DoD and its commercial contractors, aircraft operators, aircraft modification centers and foreign militaries. Occasionally, IS&S sells its products directly to DoD; however, the Company sells its products primarily to commercial customers for end use in DoD programs. Sales to defense contractors are generally made on commercial terms, although some of the termination and other provisions of government contracts are applicable to these contracts.

Cost of sales related to product sales is comprised of material, components and third party avionics purchased from suppliers, direct labor, and overhead costs. Many of the components are standard, although certain parts are manufactured to meet IS&S specifications. The overhead portion of cost of sales is comprised primarily of salaries and benefits, building occupancy costs, supplies, and outside service costs related to production, purchasing, material control, and quality control. Cost of sales includes warranty costs.

Cost of sales related to Engineering Development Contracts (EDC) sales is comprised of engineering labor, consulting services, and other costs associated with specific design and development projects. These costs are incurred pursuant to contractual arrangements and are accounted for typically as contract costs within cost of sales with the reimbursement accounted for as a sale in accordance with the percentage-of-completion method of accounting. Company funded research and development (R&D) expenditures relate to internally-funded efforts towards the development of new products and the improvement of existing products. These costs are expensed as incurred and reported as R&D expenses. The Company intends to continue investing in the development of new products that complement current product offerings and to expense associated R&D costs as they are incurred.

Selling, general and administrative expenses consist of sales, marketing, business development, professional services, salaries and benefits for executive and administrative personnel, facility costs, recruiting, legal, accounting, bad debt expense and other general corporate expenses.

IS&S sells its products to agencies of the United States and foreign governments, aircraft operators, aircraft modification centers, and original equipment manufacturers. The Company's customers have been and may continue to be affected by the uncertain economic conditions that currently exist both in the United States and abroad. Such conditions may cause customers to curtail or delay their spending on both new and existing aircraft. Factors that can impact general economic conditions and the level of spending by customers include, but are not limited to, general levels of consumer spending, increases in fuel and energy costs, conditions in the real estate and mortgage markets, labor and healthcare costs, access to credit, consumer confidence, and other macroeconomic factors that affect spending behavior. Furthermore, spending by government agencies may be reduced in the future if tax revenues decline, including as a result of currently proposed tax reform legislation in the United States. If customers curtail or delay their spending or are forced to declare bankruptcy or liquidate their operations because of adverse economic conditions, the Company's revenues and results of operations would be affected adversely. However, the Company believes that, in an uncertain economic environment, customers that may have otherwise elected to purchase newly manufactured aircraft may be interested instead in retrofitting existing aircraft as a cost-effective alternative, thereby creating a market opportunity for IS&S.

Results of Operations

The following table sets forth statements of operations data expressed as a percentage of total net sales for the fiscal years indicated (some items may not add due to rounding):

Table of Contents

	Twelve Months Ending September 30,		
	2017	2016	2015
Net sales:			
Product	96.1%	96.5%	72.6%
Engineering development contracts	3.9%	3.5%	27.4%
Total net sales	100.0%	100.0%	100.0%
Cost of sales:			
Product	49.4%	39.8%	42.0%
Engineering development contracts	2.2%	1.3%	23.5%
Total cost of sales	51.6%	41.1%	65.5%
Gross profit	48.4%	58.9%	34.5%
Operating expenses:			
Research and development	26.5%	17.4%	13.5%
Selling, general and administrative	22.3%	32.8%	39.1%
Total operating expenses	48.8%	50.2%	52.6%
Operating (loss) income	(0.4)%	8.7%	(18.1)%
Interest income	0.2%	0.1%	0.1%
Other income	28.9%	0.3%	0.2%
Income (loss) before income taxes	28.7%	9.1%	(17.8)%
Income tax expense	1.5%	2.0%	11.4%
Net income (loss)	27.2%	7.1%	(29.2)%

Fiscal Year Ended September 30, 2017 Compared to Fiscal Year Ended September 30, 2016

Net sales. Net sales decreased \$11.2 million, or 40%, to \$16.8 million from \$28.0 million for fiscal 2016. For fiscal 2017, product sales decreased \$10.9 million and EDC sales decreased \$0.3 million, in each case, compared to fiscal 2016. This decrease primarily reflects decreased shipments of displays for retrofit programs to commercial transport customers and general aviation customers reflecting reduced demand compared to fiscal 2016. The decrease in EDC sales was primarily the result of less revenue being recognized from EDC projects awarded in prior years as they have been completed and they have not been replaced by new EDC programs.

Cost of sales. Cost of sales was \$8.7 million or 51.6% of net sales, for fiscal 2017 compared to \$11.5 million, or 41.1% of net sales, in fiscal 2016. The decrease in cost of sales was primarily the result of decreased product sales volume. The Company's overall gross margin in fiscal 2017 was 48.4% compared to 58.9% in fiscal 2016. The fiscal 2017 gross margin decrease reflects lower product gross margin primarily the result of reduced coverage of fixed costs due to reduced product sales volume. The EDC gross margin in fiscal 2016 reflects a reversal of a loss accrual in the amount of \$0.5 million as the Company had negotiated changes in January 2016 to its arrangement with a certain customer whereby the Company's obligation with respect to certain product deliverables were cancelled.

Research and development (R&D). R&D expense was \$4.5 million for fiscal 2017 and \$4.9 million for fiscal 2016. R&D expense increased to 26.5% of net sales in fiscal 2017 compared to 17.4% of net sales in fiscal 2016. Although R&D expense in fiscal 2017 was \$0.4 million less than fiscal 2016, the R&D expense increase as a percentage of net sales resulted primarily from lower sales

Table of Contents

volume in fiscal 2017 compared to fiscal 2016. The decrease in R&D expense resulted primarily from reduced personnel and consultant costs in fiscal 2017.

Selling, general, and administrative. Selling, general and administrative expense decreased \$5.4 million or 59.2% to \$3.7 million or 22.3% of net sales, for fiscal 2017 from \$9.2 million, or 32.8%, for fiscal 2016. The decrease in selling, general, administrative expenses in fiscal 2017 was primarily due to the reversal of the \$3.6 million reserve of the Delta unbilled receivable and lower legal fees as compared to fiscal 2016, in each case, due to the February 23, 2017 settlement with Delta.

Interest income, net. Net interest income increased by \$2,000 to \$36,000 for fiscal 2017 from \$34,000 for fiscal 2016. The increase in interest was primarily the result of higher cash balances throughout the year ended September 30, 2017 as compared to the year ended September 30, 2016.

Other income. Other income was \$4.9 million in fiscal 2017 and \$78,000 in fiscal 2016. The Delta settlement payment to the Company of \$7.75 million is partially reflected in the financial statements as payment of the \$3.6 million unbilled receivable previously reserved in selling, general, and administrative expenses and the remainder of the settlement payment, approximately \$4.1 million is reflected in other income. In addition, the Company sold its outstanding Pennsylvania R&D tax credits in the quarter ended September 30, 2017 and realized a gain on the sale of \$0.7 million which is also reflected in other income. Royalties earned in fiscal 2017 was approximately \$57,000 as compared to \$78,000 in fiscal 2016.

Income taxes. Income tax expense for the fiscal 2017 was \$248,000 as compared to income tax expense of \$568,000 for fiscal 2016. The effective tax rate for fiscal 2017 was 5.2%. The effective tax rate differs from the statutory rate primarily due to the reduction of the valuation allowance of \$1.7 million for tax assets whose benefits were realized in fiscal 2017 that were fully reserved in fiscal 2016. The tax assets realized were primarily from the reversal of the \$3.6 million reserve of the Delta unbilled receivable, the sale of the Company's Pennsylvania R&D tax credits and the utilization of some of the Federal Research and Development Tax Credits to reduce income taxes.

Net income. As a result of the factors described above, the Company's net income for fiscal 2017 was \$4.6 million compared to net income of \$2.0 million for fiscal 2016. On a fully diluted basis, net income per share was \$0.27 for fiscal 2017, compared to a net income of \$0.12 per share for fiscal 2016. The increases in net income and net income per share were a result of the proceeds of the Delta settlement.

Fiscal Year Ended September 30, 2016 Compared to Fiscal Year Ended September 30, 2015

Net sales. Net sales increased \$8.0 million, or 39.4%, to \$28.0 million for fiscal 2016 from \$20.1 million for fiscal 2015. For fiscal 2016, product sales increased \$12.4 million and EDC sales decreased \$4.5 million, in each case, compared to fiscal 2015. The increase in product sales was primarily the result of increased shipments of displays for retrofit programs to commercial transport customers, the DoD, and commercial subcontractors as a result of increased demand compared to fiscal 2015. The decrease in EDC sales was primarily the result of less revenue being recognized from EDC projects awarded in prior years as they are nearing completion and they have not been replaced by new EDC projects.

Cost of sales. Cost of sales was \$11.5 million, or 41.1% of net sales, for fiscal 2016 compared to \$13.1 million, or 65.5% of net sales, in fiscal 2015. The decrease in cost of sales was primarily the result of decreased sales volume in the Company's EDC programs, partially offset by increased manufacturing costs reflecting increased product sales. The Company's overall gross margin in fiscal 2016 was 58.9% compared to 34.5% in fiscal 2015. The overall margin increase primarily reflects the effect of increased product sales, the recognition of deferred revenue and increased production volume relative to fixed costs. The overall gross margin increase was also impacted by an increase in gross margin on EDC programs, from 14% in fiscal 2015 to 68% in fiscal 2016. The fiscal 2016 EDC margin includes the reversal of a loss accrual in the amount of \$0.5 million as the Company negotiated changes in January 2016 to its arrangement with a certain customer whereby the Company's obligation with certain product deliverables were cancelled.

Research and development (R&D). R&D expense was \$4.9 million for fiscal 2016 and \$2.7 million for fiscal 2015. R&D expense increased to 17.4% of net sales in fiscal 2016 compared to 13.5% in fiscal 2015, reflecting a higher proportion of engineering hours incurred on internal R&D projects as the EDC programs are nearing completion.

Selling, general, and administrative. Selling, general and administrative expenses increased \$1.3 million, or 16.9%, to \$9.2 million, or 32.8% of net sales, for fiscal 2016 from \$7.8 million, or 39.1% of net sales, for fiscal 2015. The increase in selling, general and administrative expenses for the year ended September 30, 2016 primarily reflects increased legal expense related to litigation arising from the termination of the Delta contract in 2014 and increased audit fees. The increase was partially offset by the reduction of bad

Table of Contents

debt expense in fiscal 2016 versus fiscal 2015. In fiscal 2015 a \$1.3 million bad debt expense was incurred due to an impairment of an unbilled receivable.

Interest income, net. Net interest income increased by \$9,000 to \$34,000 for fiscal 2016 from \$25,000 for fiscal 2015. The increase in interest was primarily the result of higher cash balances throughout the year ended September 30, 2016 as compared to the year ended September 30, 2015.

Other income. Other income for fiscal 2016 and fiscal 2015 was \$78,000 and \$33,000, respectively. The increase in fiscal 2016 was primarily the result of higher royalties earned compared to fiscal 2015.

Income taxes. Income tax expense for the fiscal year ended September 30, 2016 was \$0.6 million compared to an income tax expense of \$2.3 million for the fiscal year ended September 30, 2015.

The effective tax rate for the year ended September 30, 2016 was 22.2%. The effective tax rate differs from the statutory rate primarily due to favorable temporary differences, Federal Research and Development Tax Credits utilization and an associated reduction to the valuation allowance.

Net income. As a result of the factors described above, the Company's net income for fiscal 2016 was \$2.0 million compared to a net loss of \$5.9 million for fiscal 2015. On a fully diluted basis, net income per share was \$0.12 for fiscal 2016, compared to a net loss of \$0.35 per share for fiscal 2015.

Liquidity and Capital Resources

The following table highlights key financial measurements of the Company:

	September 30, 2017	September 30, 2016
Cash and cash equivalents	\$ 24,680,301	\$ 18,767,661
Accounts receivable	\$ 2,748,597	\$ 4,511,091
Current assets	\$ 34,181,438	\$ 29,369,459
Current liabilities	\$ 3,361,642	\$ 3,573,264
Deferred revenue	\$ 280,354	\$ 179,585
Other non-current liabilities (1)	\$ 67,742	\$ 67,701
Quick ratio (2)	8.16	6.51
Current ratio (3)	10.17	8.22

	Twelve Months Ended September 30,		
	2017	2016	2015
Cash flow activities:			
Net cash provided by operating activities	\$ 6,065,678	\$ 3,562,053	\$ 1,401,589
Net cash used in investing activities	(153,038)	(351,654)	(118,964)
Net cash (used in) provided by financing activities		(724,777)	(215,170)

-
- (1) Excludes deferred revenue
 - (2) Calculated as: the sum of cash and cash equivalents plus accounts receivable, net, divided by current liabilities
 - (3) Calculated as: current assets divided by current liabilities

The Company's principal source of liquidity has been cash flows from current year operations and cash accumulated from prior years' operations. Cash is used principally to finance inventory, accounts receivable, unbilled receivables, and payroll.

Table of Contents

Operating Activities

The Company generated \$6.1 million of cash from operations during fiscal 2017 as compared to \$3.6 million during fiscal 2016. The cash provided by operating activities for the year ended September 30, 2017 was primarily comprised of net income of \$4.6 million, the decrease in receivables of \$1.8 million, and depreciation of \$0.5 million, partially offset by the increase of inventory of \$0.6 million and the decrease in accounts payable of \$0.2 million and accrued expenses of \$0.1 million. The increase in net income during fiscal 2017 was a result of the proceeds of the Delta settlement.

The Company generated \$3.6 million of cash during fiscal 2016 as compared to \$1.4 million of cash in operating activities during fiscal 2015. The cash provided by operating activities for the year ended September 30, 2016 resulted primarily from net income of \$2.0 million the decrease in net unbilled receivables of \$2.3 million, the decrease in inventories of \$1.0 million, depreciation and deferred taxes of \$0.5 million each, respectively partially offset by the increase in accounts receivable of \$2.1 million payable and the decrease of accrued expenses payable of \$0.7 million, respectively.

Investing Activities

Cash used in investing activities was \$0.2 million and \$0.4 million for fiscal years 2017 and 2016, respectively, and consisted of spending for production equipment and laboratory test equipment. The Company plans to continue investing in capital equipment to support engineering development efforts and operations.

Financing Activities

Cash used by financing activities was none and \$0.7 million for fiscal years 2017 and 2016, respectively, and consisted primarily from the purchase of treasury stock.

Summary

Future capital requirements depend upon numerous factors, including market acceptance of the Company's products, the timing and rate of expansion of business, acquisitions, joint ventures, and other factors. IS&S has experienced increases in expenditures since its inception and anticipates that expenditures will remain relatively constant with the levels experienced in fiscal 2017 and fiscal 2016 in the foreseeable future. The Company believes that its cash and cash equivalents will provide sufficient capital to fund operations for at least the next twelve months. Further, IS&S may need to develop and introduce new or enhanced products, to respond to competitive pressures, to invest in or acquire businesses or technologies, or to respond to unanticipated requirements or developments. If insufficient funds are available, the Company may not be able to introduce new products or to compete effectively.

Contractual Obligations

The Company's contractual obligations as of September 30, 2017 mature as follows:

Contractual Obligations	Total	Payments Due by Period			
		Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Operating leases	\$ 53,173	\$ 53,173	\$	\$	\$
Purchase obligations (1)	867,307	833,039	34,268		
	\$ 920,480	\$ 886,212	\$ 34,268	\$	\$

(1) A purchase obligation is defined as an agreement to purchase goods or services that is enforceable and legally binding on the Company and that specifies all significant terms, including fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. These amounts are primarily comprised of open purchase order commitments entered in the ordinary course of business with vendors and subcontractors pertaining to fulfillment of the Company's current order backlog.

Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements.

Table of Contents

Inflation

IS&S does not believe inflation had a material effect on its financial position or results of operations during the past three years; however, it cannot predict future effects of inflation.

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. The Company s most critical accounting policies are revenue recognition, income taxes, inventory valuation, share based compensation and warranty reserves.

Revenue recognition

The Company enters into sales arrangements with customers that, in general, provide for the Company to design, develop, manufacture and deliver air data equipment, large flat-panel display systems, and advanced monitoring systems that measure and display critical flight information, including data relative to aircraft separation, airspeed, altitude, and engine and fuel data measurements. The Company s sales arrangements may include multiple deliverables as defined in FASB ASC Topic 605-25 *Multiple-Element Arrangements* (ASC Topic 605-25), which typically include design and engineering services and the production and delivery of the flat panel display and related components. The Company includes any design and engineering services elements in EDC sales and any functional upgrade and product elements in product sales on the accompanying consolidated statements of operations.

To the extent that an arrangement contains software elements that are essential to the functionality of tangible products sold in the arrangement, the Company recognizes revenue for the deliverables in accordance with the guidance included in FASB Accounting Update 2009-14, *Revenue Arrangements That Include Software Elements* (ASU 2009-14); and FASB Accounting Standards Update 2009-13, *Multiple-Deliverable Revenue Arrangements-a consensus of the FASB Emerging Issues Task Force* (ASU 2009-13); and FASB ASC Topic 605, *Revenue Recognition* (ASC Topic 605).

To the extent that an arrangement contains software components, which include functional upgrades that are sold on a standalone basis and which the Company has deemed outside the scope of the exception defined by ASU 2009-14, the Company recognizes software revenue in accordance with ASC Topic 985, *Software* (ASC Topic 985).

Multiple Element Arrangements

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The Company identifies all goods and/or services that are to be delivered separately under such a sales arrangement and allocates sales to each deliverable (if more than one) based on that deliverable's selling price. The Company considers the appropriate recognition method for each deliverable. The Company's multiple element arrangements can include defined design and development activities, functional upgrades, and product sales.

The Company utilizes the selling price hierarchy that has been established by FASB ASU 2009-13, which requires that the selling price for each deliverable be based on vendor-specific objective evidence if available, third-party evidence if vendor-specific objective evidence is not available, or estimated selling price if neither vendor-specific objective evidence nor third-party evidence is available. To the extent that an arrangement includes a deliverable for which estimated selling price is used, the Company determines the best estimate of selling price by applying the same pricing policies and methodologies that would be used to determine the price to sell the deliverable on a standalone basis.

To the extent that an arrangement contains defined design and EDC activities as an identified deliverable in addition to products (resulting in a multiple element arrangement), the Company recognizes as EDC sales amounts earned during the design and development phase of the contract following the guidance included in FASB ASC Topic 605-35, *Construction-Type and Production-Type Contracts* (ASC Topic 605-35). To the extent that multiple element arrangements include product sales, sales are generally recognized once revenue recognition criteria for the product deliverables have been met based on the provisions of ASC Topic 605. The Company includes any design and engineering services elements in EDC sales and any functional upgrade and product elements in product sales on the accompanying consolidated statements of operations.

Table of Contents

Single Element Arrangements

Products

To the extent that a single element arrangement provides for product sales and repairs, the Company recognizes revenue when revenue recognition criteria for the product deliverable have been met based on the provisions of ASC Topic 605. In addition, the Company receives orders for equipment and parts, and in general, recognizes revenue upon shipment to the customer.

The Company offers its customers extended warranties for additional fees, which it records as deferred revenue and recognizes as sales on a straight-line basis over the warranty periods.

Engineering development contract services

The Company may enter into contracts to perform specified design and EDC services related to its products. The Company recognizes revenue from these arrangements as EDC revenue, following the guidance included in ASC Topic 605-35, and considers the nature of these contracts (including term, size of contract, and level of effort) when determining the appropriate accounting treatment for a particular contract. For contracts that are long-term in nature the Company believes that the use of the percentage-of-completion method is appropriate as the Company has the ability to make reasonably dependable estimates of the extent of progress towards completion, contract revenues, and contract costs. In certain circumstances, the Company uses the completed contract method for all others contracts. Sales and profit margins under the percentage-of-completion method are recorded based on the ratio of actual costs incurred to total estimated costs expected to be incurred related to the contract under the cost-to-cost method.

The percentage-of-completion method of accounting requires the Company to estimate the profit margin for each individual contract, and to apply that profit margin on a uniform basis as sales are recorded under the contract. The estimation of profit margins requires the Company to make projections of the total sales to be generated and the total costs that will be incurred under a contract. The projections require the Company to make numerous assumptions and estimates relating to items such as the complexity of design and related development costs, performance of subcontractors, availability and cost of materials, engineering productivity and cost, overhead, and capital costs. Contracts sometimes include purchase options for additional quantities and customer change orders for additional or revised product functionality. Sales and costs related to profitable purchase options are included in the Company's estimates only when the options are exercised, while sales and costs related to unprofitable purchase options are included in the Company's estimates when exercise is determined to be probable. Sales related to change orders are included in profit estimates only if they can be estimated reliably and collectability is reasonably assured. Purchase options and change orders are accounted for either as an integral part of the original contract or separately, depending upon the nature and value of the item. Anticipated losses on contracts are recognized in full in the period in which losses become probable and estimable.

The Company reviews estimates of profit margins for contracts on a quarterly basis. Changes in these underlying estimates because of either revisions in sales and cost estimates or the exercise of contract options may result in profit margins being recognized unevenly over a contract because such changes are accounted for on a cumulative basis in the period in which estimates are revised. Significant changes in estimates related to accounting for long-term contracts may have a material effect on the Company's results of income in the period in which the revised estimate is made. Cumulative catch-up adjustments (loss contracts) resulting from changes in estimates are disclosed in the notes to the

consolidated financial statements of the Company.

Income taxes

Income taxes are recorded in accordance with ASC Topic 740, *Income Taxes* (ASC Topic 740), which utilizes a balance sheet approach to provide for income taxes. Under this method, the Company recognizes deferred tax assets and liabilities for temporary differences between the financial reporting basis and the tax basis of the Company's assets, liabilities, and expected benefits of utilizing NOL and tax credit carry-forwards. The impact on deferred taxes of changes in tax rates and laws, if any, are applied to the years during which temporary differences are expected to be settled, and are reflected in the consolidated financial statements in the period of enactment. At the end of each interim and year-end reporting period, the Company prepares an estimate of the annual effective income tax rate and applies that annual effective income tax rate to ordinary year-to-date pre-tax income for the interim period. Specific tax items discrete to a particular quarter are recorded in income tax expense for that quarter. The estimated annual effective tax rate used in providing for income taxes on a year-to-date basis may change in subsequent periods.

Deferred tax assets are reduced by a valuation allowance if, based on the consideration of all available evidence, it is more likely than not that some portion of the deferred tax asset will not be realized. Significant weight is given to evidence that can be objectively verified, and significant management judgment is required in determining any valuation allowance recorded against net deferred tax assets. The Company evaluates deferred income taxes on a quarterly basis to determine if a valuation allowance is required by considering available evidence. Deferred tax assets are recognized when expected future taxable income is sufficient to allow the related tax benefits to reduce taxes that would otherwise be payable. The sources of taxable income that may be available to realize the benefit of deferred tax assets are future reversals of existing taxable temporary differences, future taxable income exclusive of reversing temporary differences and credit carryforwards, taxable income in carryback years, and tax planning strategies which are both prudent and feasible. The Company's current balance of the deferred tax valuation allowance is recorded against the majority of the federal and state deferred tax assets. The remaining amount of the deferred tax assets recognized are attributable to tax planning

Table of Contents

strategies and the ability to carryback federal tax losses to claim a tax refund. The Company will continue to assess all available evidence during future periods to evaluate any changes to the realization of its deferred tax assets. **If the Company were to determine that it would be able to realize additional federal or state deferred tax assets in the future, it would make an adjustment to the valuation allowance which would reduce the provision for income taxes.**

The accounting for uncertainty in income taxes requires a more likely than not threshold for financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. The Company records a liability for the difference between the (i) benefit recognized and measured for financial statement purposes and (ii) the tax position taken or expected to be taken on the Company's tax return. To the extent that the Company's assessment of such tax positions changes, the change in estimate is recorded in the period in which the determination is made. The Company has elected to record any interest or penalties associated with uncertain tax positions as income tax expense.

Inventory valuation

The Company values inventory at the lower of cost (first-in, first-out) or market. Inventories are written down for estimated obsolescence equal to the difference between inventory cost and estimated net realizable value based on a combination of historical usage and assumptions based on expected usage related to estimated future customer and market demands. The Company's method of valuing inventory contains uncertainties because the calculation requires management to consider inventory aging, to make assumptions regarding expected usage, and to apply judgments on forecasted future demand, market conditions, and technological obsolescence. If actual future demand or market conditions are less favorable than those projected by management, additional inventory write-down may be required.

Stock-based compensation

The Company accounts for stock-based compensation under FASB ASC Topic 505-50, *Equity-Based Payments to Non-Employees* (ASC Topic 505-50) and FASB ASC Topic 718, *Stock Compensation* (ASC Topic 718), which require the Company to measure the cost of employee or non-employee director services received in exchange for an award of equity instruments based on the grant-date fair value of the award using an option pricing model. That cost is recognized over the period during which an employee or non-employee director is required to provide service in exchange for the award.

Accordingly, adoption of ASC Topic 505-50's and ASC Topic 718's fair value method results in recording compensation costs under the Company's stock based compensation plans. The Company determined the fair value of its stock option awards at the date of grant using the Black-Scholes option pricing model. Option pricing models and generally accepted valuation techniques require management to make assumptions and to apply judgment to determine the fair value of its awards. These assumptions and judgments include estimating future volatility of the Company's stock price, expected dividend yield, future employee turnover rates, and future employee stock option exercise behaviors. Changes in these assumptions can materially affect fair value estimates. The Company does not believe that a reasonable likelihood exists that there will be a material change in future estimates or assumptions used to determine stock-based compensation expense. However, if actual results are not consistent with the Company's estimates or assumptions, the Company would adjust its estimates. Such adjustments could have a material impact on the Company's financial position.

Warranty reserves

The Company offers warranties on some products of various lengths, however the standard warranty is twenty-four months. At the time of shipment, the Company establishes a reserve estimated for costs of warranties based on its best estimate of the amounts necessary to settle future and existing claims using historical data on products sold as of the balance sheet date. The length of the warranty period, the product's failure rates, and the customer's usage affect warranty cost. If actual warranty costs differ from the Company's estimated amounts, future results of operations could be affected adversely. Warranty cost is recorded as cost of sales, and the reserve balance is recorded as an accrued expense. While the Company maintains product quality programs and processes, its warranty obligation is affected by product failure rates and the related corrective costs. If actual product failure rates and/or corrective costs differ from the estimates, the Company revises estimated warranty liability.

Self-insurance reserves

Since January 1, 2014, the Company has self-insured a significant portion of its employee medical insurance. The Company maintains a stop-loss insurance policy that limits its losses both on a per employee basis and an aggregate basis. Liabilities associated with the risks that are retained by the Company are estimated based upon actuarial assumptions such as historical claims experience, demographic factors and other actuarial assumptions. The Company estimated the total medical claims incurred but not reported and the Company believes that it has adequate reserves for these claims at September 30, 2017. However, the actual value of such claims could be significantly affected if future occurrences and claims differ from these assumptions. At September 30, 2017, the estimated liability for medical claims incurred but not reported was \$53,200. The Company has recorded the excess of funded premiums over

Table of Contents

estimated claims incurred but not reported of \$249,000 as a current asset in the accompanying consolidated balance sheet. During the year ended September 30, 2017, the Company has used the excess of funded premiums to reduce amounts payable for claims incurred.

Treasury Stock

We account for treasury stock purchased under the cost method and include treasury stock as a component of stockholder's equity. Treasury stock purchased with intent to retire (whether or not the retirement is actually accomplished) is charged to common stock.

New Accounting Pronouncements

In March 2016, the FASB issued ASU 2016-09, Improvements to Employer Share-Based Payment Account, which simplifies the tax treatment of stock shortfalls and windfalls. Previous guidance required excess tax benefits (windfalls) to be recorded in equity. Tax deficiencies (shortfalls) were recorded in equity to the extent of previous windfalls then to the income statement. The new guidance simplifies this treatment by having all windfalls and shortfalls recorded through the income statement. This guidance will become effective for us beginning on October 1, 2017. Adoption of this standard will not have a material effect upon our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). Under this guidance, an entity is required to recognize right-of-use assets and lease liabilities on its balance sheet and disclose key information about leasing arrangements. This guidance offers specific accounting guidance for lessees, and lessors, including with respect to sale and leaseback transactions. Lessees and lessors are required to disclose qualitative and quantitative information about leasing arrangements to enable a user of the financial statements to assess the amount, timing and uncertainty of cash flows arising from leases. This guidance is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period, and requires a modified retrospective adoption, with early adoption permitted. The Company is currently evaluating the impacts of adoption of this guidance.

In November 2015, the FASB issued ASU 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes, which simplifies balance sheet presentation of deferred income taxes. Previous guidance required an entity to separate deferred income tax liabilities and assets into current and noncurrent amounts in a classified statement of financial position; however, the new guidance requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The updated standard is effective for the Company beginning October 1, 2017, with early adoption permitted as of the beginning of any interim or annual reporting period. The Company early adopted this standard retrospectively and reclassified its current deferred tax balances to noncurrent deferred tax for all periods presented. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In July 2015, the FASB issued guidance regarding Simplifying the Measurement of Inventory. This guidance requires entities to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which an entity must measure inventory at the lower of cost or market (market in this context is defined as one of three different measures). The guidance will not apply to inventories that are measured by using either the last-in, first-out (LIFO) method or the retail inventory method (RIM). The guidance is effective for the Company beginning October 1, 2017. Early adoption is permitted. The Company is currently assessing the impact of this guidance on its financial statements disclosure.

In August 2014, the FASB issued ASU No. 2014-15, Presentation of Financial Statements - Going Concern (Subtopic 205-40) (ASU 2014-15). The objective of ASU 2014-15 is to define management's responsibility to evaluate whether there is substantial doubt about an organization's ability to continue as a going concern and provide related disclosures. Currently, GAAP does not provide guidance to evaluate whether there is substantial doubt regarding an organization's ability to continue as a going concern. This ASU provides guidance to an organization's management, with principles and definitions to reduce diversity in the timing and content of financial statement disclosures commonly provided by organizations. This standard was adopted by the Company at September 30, 2017.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, which provides a single, comprehensive revenue recognition model for all contracts with customers, and contains principles to determine the measurement of revenue and timing of when it is recognized. The model will supersede most existing revenue recognition guidance, and also requires enhanced revenue-related disclosures. The FASB has also issued several related ASUs which provide additional implementation guidance and clarify the requirements of the model. Adoption of the new rules could affect the timing of revenue recognition for certain transactions. The guidance permits two implementation approaches, one requiring retrospective application of the new standard with restatement of prior years and one requiring retrospective application of the new standard with the cumulative effect of applying the new standard as of the date of initial application recognized and disclosure of results under old standards. Based on the nature of the Company's business, the adoption of ASU No. 2014-09, or any of the subsequent related ASUs, is not expected to impact financial reporting with respect to the majority of its revenue streams. The Company is currently in the process of evaluating current accounting policies to identify potential differences for each of its revenue streams, and there is the potential for some changes to revenue recognition practices for multiple-element arrangements. In addition, the Company is currently determining the transition method and disclosure requirements. The Company plans to adopt this standard in fiscal year 2019.

Table of Contents

As new accounting pronouncements are issued, we will adopt those that are applicable.

Business Segments

The Company operates in one business segment as a systems integrator that designs, develops, manufactures, sells, and services flight guidance and cockpit display systems for OEMs and retrofit applications. Customers include commercial air transport carriers and corporate/general aviation companies, DoD and its commercial contractors, aircraft operators, aircraft modification centers, foreign militaries, and various OEMs. The Company currently derives the majority of its revenues from the sale of this equipment and related EDC services. Almost all of the Company's sales, operating results and identifiable assets are in the United States. In fiscal year 2017, 2016, and 2015 net sales outside the United States amounted to \$2.6 million, \$8.2 million and \$6.6 million, respectively.

Item 7A. Quantitative and qualitative disclosures about market risk.

The Company's operations are exposed to market risks primarily as a result of changes in interest rates. The Company does not use derivative financial instruments for speculative or trading purposes. The Company's exposure to market risk for changes in interest rates relates to its cash equivalents. The Company's cash equivalents consist of funds invested in money market funds, which bear interest at a variable rate. The Company does not participate in interest rate hedging. A change in interest rates earned on the Company's cash equivalents would impact interest income and cash flows, but would not impact the fair market value of the underlying instruments. Assuming that the balances during fiscal 2017 were to remain constant and that the Company did not act to alter the existing interest rate sensitivity, a hypothetical 1% increase in variable interest rates would have affected interest income by approximately \$0.2 million. This would result in a net impact on cash of approximately \$0.2 million for fiscal 2017.

Item 8. Financial statements and supplementary data.

The financial statements of Innovative Solutions and Support, Inc. listed in the index appearing under Item 8 herein are filed as part of this Report.

Table of Contents

Innovative Solutions and Support, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page
<u>Report of Independent Registered Public Accounting Firm</u>	35
<u>Consolidated Balance Sheets</u>	36
<u>Consolidated Statements of Operations</u>	37
<u>Consolidated Statements of Shareholders' Equity</u>	38
<u>Consolidated Statements of Cash Flows</u>	39
<u>Notes to Consolidated Financial Statements</u>	40-57

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
Innovative Solutions and Support, Inc.

We have audited the accompanying consolidated balance sheets of Innovative Solutions and Support, Inc. (a Pennsylvania corporation) and subsidiaries (the Company) as of September 30, 2017 and 2016, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended September 30, 2017. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Innovative Solutions and Support, Inc. and subsidiaries as of September 30, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2017 in conformity with accounting principles generally accepted in the United States of America.

/s/ GRANT THORNTON LLP

Philadelphia, Pennsylvania
December 15, 2017

Grant Thornton LLP
U.S. member firm of Grant Thornton International Ltd

Table of Contents

INNOVATIVE SOLUTIONS AND SUPPORT, INC.

CONSOLIDATED BALANCE SHEETS

	September 30, 2017	September 30, 2016
<i>ASSETS</i>		
Current assets		
Cash and cash equivalents	\$ 24,680,301	\$ 18,767,661
Accounts receivable	2,748,597	4,511,091
Unbilled receivables, net	1,480,822	1,597,672
Inventories	4,179,654	3,645,828
Prepaid expenses and other current assets	1,092,064	847,207
Total current assets	34,181,438	29,369,459
Property and equipment, net	6,669,011	6,962,562
Other assets	187,315	156,948
Total assets	\$ 41,037,764	\$ 36,488,969
<i>LIABILITIES AND SHAREHOLDERS' EQUITY</i>		
Current liabilities		
Accounts payable	\$ 1,321,251	\$ 1,503,771
Accrued expenses	1,760,037	1,889,908
Deferred revenue	280,354	179,585
Total current liabilities	3,361,642	3,573,264
Non-current deferred income taxes	67,742	67,701
Total liabilities	3,429,384	3,640,965
Commitments and contingencies (See Note 14)		
Shareholders' equity		
Preferred stock, 10,000,000 shares authorized, \$.001 par value, of which 200,000 shares are authorized as Class A Convertible stock. No shares issued and outstanding at September 30, 2017 and 2016		
Common stock, \$.001 par value: 75,000,000 shares authorized, 18,879,580 and 18,812,465 issued at September 30, 2017 and 2016, respectively	18,880	18,813
Additional paid-in capital	51,583,841	51,392,159
Retained earnings	7,374,196	2,805,569
Treasury stock, at cost, 2,096,451 shares at September 30, 2017 and at September 30, 2016	(21,368,537)	(21,368,537)
Total shareholders' equity	37,608,380	32,848,004
Total liabilities and shareholders' equity	\$ 41,037,764	\$ 36,488,969

The accompanying notes are an integral part of these statements.

Table of Contents

INNOVATIVE SOLUTIONS AND SUPPORT, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Fiscal Year Ended September 30,		
	2017	2016	2015
Net sales:			
Product	\$ 16,133,371	\$ 26,985,899	\$ 14,573,475
Engineering development contracts	653,303	983,804	5,493,609
Total net sales	16,786,674	27,969,703	20,067,084
Cost of sales:			
Product	8,294,228	11,112,339	8,417,571
Engineering development contracts	374,121	369,984	4,717,778
Total cost of sales	8,668,348	11,482,323	13,135,349
Gross profit	8,118,326	16,487,380	6,931,735
Operating expenses:			
Research and development	4,456,657	4,873,328	2,705,208
Selling, general and administrative	3,739,234	9,170,865	7,847,270
Total operating expenses	8,195,891	14,044,193	10,552,478
Operating (loss) income	(77,565)	2,443,187	(3,620,743)
Interest income	35,888	33,504	24,804
Other income	4,858,224	78,440	33,283
Income (loss) before income taxes	4,816,547	2,555,131	(3,562,656)
Income tax expense	247,920	568,330	2,303,478
Net income (loss)	\$ 4,568,627	\$ 1,986,801	\$ (5,866,134)
Net income (loss) per common share:			
Basic	\$ 0.27	\$ 0.12	\$ (0.35)
Diluted	\$ 0.27	\$ 0.12	\$ (0.35)
Weighted average shares outstanding:			
Basic	16,742,461	16,927,055	16,924,189
Diluted	16,855,644	17,039,296	16,924,189

The accompanying notes are an integral part of these statements.

Table of Contents

INNOVATIVE SOLUTIONS AND SUPPORT, INC.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS EQUITY

	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Total
Balance, September 30, 2014	\$ 18,715	\$ 50,697,497	\$ 6,684,902	\$ (20,389,590)	\$ 37,011,524
Share-based compensation		262,314			262,314
Exercise of stock options	20	38,980			39,000
Issuance of stock to directors	21	149,931			149,952
Purchase of treasury stock				(254,170)	(254,170)
Net loss			(5,866,134)		(5,866,134)
Balance, September 30, 2015	\$ 18,756	\$ 51,148,722	\$ 818,768	\$ (20,643,760)	\$ 31,342,486
Share-based compensation		60,272			60,272
Issuance of stock to directors	57	183,165			183,222
Purchase of treasury stock				(724,777)	(724,777)
Net income			1,986,801		1,986,801
Balance, September 30, 2016	\$ 18,813	\$ 51,392,159	\$ 2,805,569	\$ (21,368,537)	\$ 32,848,004
Issuance of stock to directors	67	191,682			191,749
Net income			4,568,627		4,568,627
Balance, September 30, 2017	\$ 18,880	\$ 51,583,841	\$ 7,374,196	\$ (21,368,537)	\$ 37,608,380

The accompanying notes are an integral part of these statements.

Table of Contents

INNOVATIVE SOLUTIONS AND SUPPORT, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Fiscal Year Ended September 30,		
	2017	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	\$ 4,568,627	\$ 1,986,801	\$ (5,866,134)
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	449,189	493,361	570,314
Share-based compensation expense			
Stock options		68,172	316,369
Stock awards	191,749	183,222	149,952
Tax adjustment from share-based compensation		(7,899)	(54,055)
Provision for loss on unbilled receivables			1,237,841
(Gain) loss on disposal of property and equipment		3,605	(61,817)
Excess and obsolete inventory cost	92,829		225,742
Deferred income taxes	41	494,016	2,743,616
(Increase) decrease in:			
Accounts receivable	1,762,494	(2,116,941)	2,025,168
Unbilled receivables, net	116,850	2,322,537	2,267,678
Inventories	(626,655)	951,488	647,728
Prepaid expenses and other current assets	(91,280)	371,684	(250,331)
Other non-current assets	(32,967)		(75,300)
Increase (decrease) in:			
Accounts payable	(182,520)	67,790	(966,671)
Accrued expenses	(129,871)	(678,623)	(1,323,609)
Income taxes	(153,577)		(415,328)
Deferred revenue	100,769	(577,160)	230,426
Net cash provided by operating activities	6,065,678	3,562,053	1,401,589
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment	(153,038)	(352,762)	(188,509)
Proceeds from the sale of property and equipment		1,108	69,545
Net cash (used in) investing activities	(153,038)	(351,654)	(118,964)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from exercise of stock options			39,000
Purchases of treasury stock		(724,777)	(254,170)
Net cash (used in) financing activities		(724,777)	(215,170)
Net increase in cash and cash equivalents	5,912,640	2,485,622	1,067,455
Cash and cash equivalents, beginning of year	18,767,661	16,282,039	15,214,584
Cash and cash equivalents, end of year	\$ 24,680,301	\$ 18,767,661	\$ 16,282,039
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Cash paid for income tax	\$ 400,000	\$ 175,000	\$
Cash received from income tax refund	\$	\$ 364,836	\$

The accompanying notes are an integral part of these statements.

Table of Contents

INNOVATIVE SOLUTIONS AND SUPPORT, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Background

Innovative Solutions and Support, Inc. (the Company, IS&S, we or us) was incorporated in Pennsylvania on February 12, 1988. The Company operates in one business segment as a systems integrator that designs, develops, manufactures, sells, and services air data equipment, engine display systems, standby equipment, primary flight guidance and cockpit display systems for retrofit applications and original equipment manufacturers (OEMs). The Company supplies integrated Flight Management Systems (FMS), Flat Panel Display Systems (FPDS), FPDS with Autothrottle, air data equipment, Integrated Standby Units (ISU), ISU with Autothrottle and advanced Global Positioning System (GPS) receivers that enable reduced carbon footprint navigation. The Company has continued to position itself as a system integrator, which capability provides the Company with the potential to generate more substantive orders over a broader product base. The strategy, as both a manufacturer and integrator, is designed to leverage the latest technologies developed for the computer and telecommunications industries into advanced and cost-effective solutions for the general aviation, commercial air transport, United States Department of Defense (DoD)/governmental, and foreign military markets. This approach, combined with the Company s industry experience, is designed to enable IS&S to develop high-quality products and systems, to reduce product time to market, and to achieve cost advantages over products offered by its competitors. Customers include various OEMs, commercial air transport carriers and corporate/general aviation companies, DoD and its commercial contractors, aircraft operators, aircraft modification centers, and foreign militaries.

2. Concentrations

Major Customers and Products

In fiscal 2017, 2016 and 2015, the Company derived 54%, 51% and 57%, respectively, of total sales from five customers, although not all the same customers in each year. Accounts receivable and unbilled receivables related to those top five customers was \$1.3 million, \$1.6 million and \$3.5 million as of September 30, 2017, 2016 and 2015, respectively.

In fiscal 2017, the three largest customers, Sierra Nevada, Pilatus and DHL accounted for 16%, 12% and 10% of total sales, respectively. In fiscal 2016, the three largest customers, Sierra Nevada, Jet2.com and DHL accounted for 13%, 12% and 11% of total sales, respectively. In fiscal 2015, the two largest customers, Pilatus and Eclipse accounted for 20% and 15% of total sales, respectively.

Flat panel sales were 89%, 95% and 98% of total sales in the years ended September 30, 2017, 2016 and 2015, respectively. Sales of air data systems and components were 11%, 5% and 2% of total sales for the years ended September 30, 2017, 2016 and 2015, respectively. Sales to government contractors and agencies accounted for approximately 53%, 32% and 30% of total sales during fiscal years 2017, 2016 and 2015, respectively. The government agency or general contractor typically retains the right to terminate the contract at any time at its convenience.

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Upon alteration or termination of these contracts, IS&S is typically entitled to an equitable adjustment to the contract price so that it would be compensated for delivered items and allowable costs incurred. Accordingly, because these contracts can be terminated, the Company cannot be assured that its backlog will result in sales.

Major Suppliers

The Company buys several of its components from sole source suppliers. Although there are a limited number of suppliers of particular components, management believes other suppliers could provide similar components on comparable terms.

During fiscal 2017 the Company had three suppliers that accounted for 43% of the Company's total inventory related purchases. During fiscal 2016 the Company had one supplier that accounted for 25% of the Company's total inventory related purchases.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentration of credit risk consist principally of cash balances and accounts receivable. The Company invests its excess cash where preservation of principal is the major consideration. Cash balances are maintained with two major banks. Balances on deposit with certain money market accounts and operating accounts may exceed the Federal Deposit Insurance Corporation (FDIC) limits. The Company's customer base consists principally of companies within the aviation industry. The Company requests advance payments and/or letters of credit from customers that it considers to be credit risks.

Table of Contents

The Company recorded a charge for impairment for unbilled receivables in the amount of \$1.3 million in fiscal 2015 and \$3.7 million related to the Delta contract as of September 30, 2014, (See Note 5. Unbilled Receivable in Notes to Consolidated Financial Statements).

3. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its subsidiaries. All inter-company balances and transactions have been eliminated in consolidation.

Use of Estimates

The financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America, which require management to make estimates and assumptions that affect the amounts reported in the financial statements. Actual results could differ from those estimates. Estimates are used in accounting for, among other items, long term contracts, allowances for doubtful accounts, inventory obsolescence, product warranty cost liabilities, income taxes, engineering and material costs on EDC programs, percentage of completion on EDC contracts, recoverability of long-lived assets and contingencies. Estimates and assumptions are reviewed periodically and the effects of changes, if any, are reflected in the Consolidated Statements of Operations in the period they are determined.

Cash and Cash Equivalents

Highly liquid investments purchased with an original maturity of three months or less are classified as cash equivalents. Cash equivalents at September 30, 2017 and 2016 consist of cash on deposit and cash invested in money market funds with financial institutions.

Inventory valuation

Inventories are stated at the lower of cost (first-in, first-out) or market and consist of the following:

	September 30, 2017	September 30, 2016
Raw materials	\$ 2,920,209	\$ 2,966,891