GEOSPACE®
Technologies

2018

FORWARD-LOOKING STATEMENTS:

This Annual Report on Form 10-K contains "forward-looking" statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements can be identified by terminology such as "may", "will", "should", "intend", "expect", "plan", "budget", "forecast", "anticipate", "believe", "estimate", "predict", "potential", "continue", "evaluating" or similar words. Statements that contain these words should be read carefully because they discuss our future expectations, contain projections of our future results of operations or of our financial position or state other forward-looking information. Examples of forward-looking statements include, among others, statements that we make regarding our expected operating results, the results and success of our transactions with Quantum and the OptoSeis® technology, the adoption and sale of our products in various geographic regions, anticipated levels of capital expenditures and the sources of funding therefore, and our strategy for growth, product development, market position, financial results and the provision of accounting reserves. These forward-looking statements reflect our current judgment about future events and trends based on the information currently available to us. However, there will likely be events in the future that we are not able to predict or control. The factors listed under the caption "Risk Factors", as well as cautionary language in this Annual Report on Form 10-K, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Such examples include, but are not limited to, the failure of the Quantum or OptoSeis® technology transactions to yield positive operating results, decreases in commodity price levels, which could reduce demand for our products, the failure of our products to achieve market acceptance, despite substantial investment by us, our sensitivity to short term backlog, delayed or cancelled customer orders, product obsolescence resulting from poor industry conditions or new technologies, bad debt write-offs associated with customer accounts, lack of further orders for our OBX systems, failure of our Quantum products to be adopted by the border and perimeter security markets, infringement or failure to protect intellectual property, the failure of the acquisition transaction to yield positive results, and any negative impact from our restatement of our financial statements regarding current assets. The occurrence of the events described in these risk factors and elsewhere in this Annual Report on Form 10-K could have a material adverse effect on our business, results of operations and financial position, and actual events and results of operations may vary materially from our current expectations. We assume no obligation to revise or update any forward-looking statement, whether written or oral, that we may make from time to time, whether as a result of new information, future developments or otherwise.

Rick Wheeler

Dear Fellow Shareholder,

Geospace Deepens and Extends its Product Lines

While fiscal year 2018 reflected a fourth year of depressed oil and gas exploration spending, the year was still momentous for Geospace. During the year, we acquired Quantum Technology Sciences, Inc. (Quantum) to broaden our product line and extend our technology offerings in the protection of critical infrastructure and perimeters, including domestic and international borders. We have long provided sensors to this marketplace, but with Quantum, we now add strong real-time analytics that provide our customers with highly accurate and actionable real-time intelligence.

Subsequent to year-end, we also acquired from PGS Americas, Inc. all of the intellectual property and related assets associated with OptoSeis®, a fiber optic technology which has been successfully deployed in a permanent reservoir monitoring (PRM) system located offshore Brazil. For a decade and a half, our PRM systems have provided oil and gas companies with a thorough understanding of reservoir characteristics through crystal-clear images, allowing them to reduce field risks and improve production economics throughout the lifecycle of the reservoir. The OptoSeis technology complements our existing PRM product offerings, demonstrating our commitment to serve the energy industry in the broadest way possible. We believe our expertise in PRM system products will be at the forefront of consideration as oil and gas companies seek to extract hydrocarbons more cost effectively and extend the life of their fields. The OptoSeis technology also holds promise as an improved solution for land seismic operations requiring large-channel-count cabled systems, including its potential use for border and perimeter security.

Geospace has a reputation for robust and innovative seismic solutions and, with our strategic acquisition of Quantum and OptoSeis, we are expanding into important new markets as well as deepening our commitments in existing markets.

Financial Results

Our fiscal year 2018 results reflect the fourth year of a downturn in the oil and gas industry. For the year, we narrowed our net loss to $19.2 million, or $1.45 per diluted share, on revenue of $75.7 million. This compares to a net loss of $56.8 million, or $4.32 per diluted share, on revenues of $73.7 million for the prior year. Throughout this extended downturn we have remained debt free, entering fiscal year 2019 with $37.4 of cash, cash equivalents and short-term investments, plus $21.5 million available under our credit facility. As always, we are laser-focused on cost containment while at the same time making sensible capital improvements to increase our operating efficiencies. To that end, we have introduced new automation in areas of our production and intend to expand this effort as appropriate.

Oil and Gas Markets Segment

In the oil and gas markets segment (formerly known as the seismic segment), our fiscal year 2018 results reflected a 5% reduction in revenues, as oil and gas companies engaged in fewer exploration programs. Despite the decline, revenue from our OBX and GSX rental fleets increased during the year. It is especially encouraging to see growth in the demand for our OBX products in an otherwise diminished market of seismic industry activity. Such growth is evidenced by the two lease contracts for our OBX products announced prior to year-end, which commence in fiscal year 2019 and are expected to generate in excess of $20 million in revenue. We are also working with customers on even more opportunities where OBX equipment could be deployed. To satisfy these growing demands, we intend to wisely deploy additional capital into our OBX products and rental fleet to take advantage of these opportunities.

We hope fiscal year 2019 sees a loosening of the four-year stranglehold on exploration spending, especially given the dismal replacement of reserves and last year's lowest amount of new discoveries in seventy years. A refocus on such fundamentals could lead to increases in geophysical activity and expenditures. Our hope is of course predicated on a need for the industry to become sufficiently concerned about the possibility of supply shortages, after years of ignoring the decline in reserve-replacements.

As we enter year five of a downturn in seismic exploration, the challenges of forecasting industry expenditures and translating into potential sales and rentals for Geospace are even more complex. More used equipment is available in the marketplace and new manufacturers of systems are still trying to emerge, resulting in competition and pressure for lower pricing at the highest levels. Our OBX, GSX, and PRM systems are renowned for their innovation, quality, and reliability for any project - from exploration to reservoir characterization – and we believe these factors give us favor in this tight market.

Adjacent Markets Segment

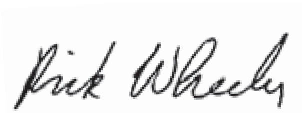
In fiscal year 2018, we recorded the largest amount of revenue in the history of our adjacent markets segment (formerly known as our non-seismic segment), largely due to greater demand for our smart water meter related products. We expect continued growth in this segment as industry demand expands for existing and new products.

Emerging Markets Segment

For fiscal year 2019, this new market segment (attributable to our acquisition of Quantum) will focus on integrating and advancing Geospace's innovative products with Quantum's exceptional analytics, resulting in more rugged and reliable solutions uniquely suited for the border and perimeter security markets. We welcome Dr. Mark Tinker and his team to Geospace where we have already begun co-development efforts on products expected to create strong future demand.

Conclusion

We know fiscal year 2019 will be a year in which we strengthen and extend our product lines, while improving our operating efficiencies. We also know that for now, oil and gas companies remain cautious if not hesitant about increasing capital expenditures for seismic exploration in apparent willingness to accept unsustainable depletion of reserves. Despite this environment, improved revenues are still possible. Two potential drivers for such improvement are increased demand for our OBX products, which can lead to additional long-term contracts for its use, and renewed interest by oil and gas companies in PRM systems. We believe we are optimally positioned to take advantage of any and all opportunities presented in these areas. Combining this with our strategy of market diversification through the acquisitions of Quantum and OptoSeis, we believe we can once again demonstrably increase shareholder value.



Rick Wheeler
President & Chief Executive Officer

GEOSPACE®
Technologies

10K

2018

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

FORM 10-K

☒ **Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended September 30, 2018**

OR

☐ **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

Commission file number 001-13601

GEOSPACE TECHNOLOGIES CORPORATION
(Exact Name of Registrant as Specified in Its Charter)

Texas	**76-0447780**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**

7007 Pinemont Drive
Houston, Texas 77040-6601
(Address of Principal Executive Offices)

(713) 986-4444
(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	**The 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 ☒

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark 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 definitions of "large accelerated filer", "accelerated filer", "smaller reporting company", and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☒ Emerging growth company ☐

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

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

There were 13,600,541 shares of the Registrant's Common Stock outstanding as of the close of business on October 31, 2018. As of March 29, 2018, the aggregate market value of the Registrant's Common Stock held by non-affiliates was approximately $129 million (based upon the closing price of $9.87 on March 29, 2018, as reported by The NASDAQ Global Market).

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement for the Registrant's 2019 Annual Meeting of Stockholders are incorporated by reference into Part III of this report.

PART I

Item 1. Business

Business Overview

Geospace Technologies Corporation reincorporated as a Texas corporation on April 16, 2015. We originally incorporated as a Delaware corporation on September 27, 1994. Unless otherwise specified, the discussion in this Annual Report on Form 10-K refers to Geospace Technologies Corporation and its subsidiaries. We design and manufacture instruments and equipment used in the oil and gas industry to acquire seismic data in order to locate, characterize and monitor hydrocarbon producing reservoirs. We also design and manufacture industrial products, offshore cables, imaging equipment and border and perimeter security products.

We have been engaged in the design and manufacture of seismic instruments and equipment since 1980. We primarily market our seismic products to the oil and gas industry to locate, characterize and monitor hydrocarbon producing reservoirs. We also market our seismic products to other industries for vibration monitoring, border and perimeter security and various geotechnical applications. We design and manufacture other products of a non-seismic nature, including water meter products, imaging equipment and offshore cables. Demand for our seismic products targeted at the oil and gas industry has been, and will likely continue to be, vulnerable to downturns in the economy and the oil and gas industry in general. For more information, please refer to the risks discussed under the heading “Risk Factors.”

Business Acquisition

On July 27, 2018, the Company acquired Quantum Technology Sciences, Inc., a Florida-based tactical security and surveillance systems solutions provider (“Quantum”) through a merger of the Company’s subsidiary with and into Quantum, with Quantum as the surviving corporation. Quantum’s operations will remain in Florida, performing as a wholly-owned subsidiary of the Company.

The acquisition purchase price for Quantum consisted of a cash payment at closing of approximately $4.4 million and contingent earn-out payments of up to $23.5 million over a four-year period. The contingent payments, if any, which may be paid in the form of cash or Company stock, will be derived from certain eligible revenue that may be generated during the four-year earn-out period.

Segment and Geographical Information

Effective September 30, 2018, we began reporting and evaluating financial information for three business segments: Oil and Gas Markets, Adjacent Markets and Emerging Markets. The Oil and Gas Markets segment was previously referred to as our Seismic segment. Our Adjacent Markets segment was previously referred to as our Non-Seismic segment. The Emerging Markets segment was added in conjunction with the acquisition of Quantum, which designs and markets seismic products targeted at the border and perimeter security markets. Because we have simply renamed our two original segments and added a new segment, we have not restated any previous financial statements. For a discussion of the products sold and markets served by each of our segments, see “Products and Product Development” below. For a discussion of financial information by segment and geographic area, see Note 22 to the consolidated financial statements contained in this Annual Report on Form 10-K.

Products and Product Development

Oil and Gas Markets

Our Oil and Gas Markets business segment has historically accounted for the majority of our revenue. Geoscientists use seismic data primarily in connection with the exploration, development and production of oil and gas reserves to map potential and known hydrocarbon bearing formations and the geologic structures that surround them. This segment’s products include wireless seismic data acquisition systems, reservoir characterization products and services, and traditional seismic exploration products such as geophones, hydrophones, leader wire, connectors, cables, marine streamer retrieval and steering devices and various other seismic products. We believe that our oil and gas products are among the most technologically advanced instruments and equipment available for seismic data acquisition.

Traditional Products

An energy source and a data recording system are combined to acquire seismic data. We provide many of the components of seismic data recording systems, including geophones, hydrophones, multi-component sensors, leader wire, geophone strings, connectors, seismic telemetry cables and other seismic related products. On land, our customers use geophones, leader wire, cables and connectors to receive and measure seismic reflections resulting from an energy source into data recording units, which store the seismic information for subsequent processing and analysis. In the marine environment, large ocean-going vessels tow long seismic cables known as "streamers" containing hydrophones which are used to detect pressure changes. Hydrophones transmit electrical impulses back to the vessel's data recording unit where the seismic data is stored for subsequent processing and analysis. Our marine seismic products also help steer streamers while being towed and help recover streamers if they become disconnected from the vessel.

Our seismic sensor, cable and connector products are compatible with most major competitive seismic data acquisition systems currently in use. Revenue from these products results primarily from seismic contractors purchasing our products as components of new seismic data acquisition systems or to repair and replace components of seismic data acquisition systems already in use.

Our products used in marine seismic data acquisition include our seismic streamer retrieval devices ("SRDs"). Occasionally, streamer cables are severed and become disconnected from the vessel as a result of obstacles, inclement weather, vessel traffic or human error. Our SRDs, which are attached to the streamer cables, contain air bags which are designed to inflate automatically at a given water depth, bringing the severed streamer cables to the surface. These SRDs save the seismic contractors significant time and money compared to the alternative of losing the streamer cable. We also produce seismic streamer steering devices, or "birds," which are fin-like devices that attach to the streamer cable. These birds help maintain the streamer cable at a certain desired depth as it is being towed through the water.

Wireless Products

We have developed a land-based wireless (or nodal) seismic data acquisition system called the GSX. Rather than utilizing interconnecting cables as required by most traditional land data acquisition systems, each GSX station operates as an independent data collection system, allowing our GSX stations to be deployed in virtually unlimited channel configurations. As a result, our GSX system requires less maintenance, which we believe allows our customers to operate more effectively and efficiently because of its reduced environmental impact, lower weight and ease of operation. Our GSX system is designed into configurations ranging from one to four channels per station. Since its introduction in 2008 and through September 30, 2018, we have sold 432,000 GSX channels and we have 77,000 GSX channels in our rental fleet.

We have also developed a marine-based wireless seismic data acquisition system called the OBX. Similar to our GSX land-based wireless system, the marine OBX system can be deployed in virtually unlimited channel configurations and does not require interconnecting cables between each station. Our deep water versions of the OBX system can be deployed in depths of up to 3,450 meters. At September 30, 2018, we had 13,000 OBX stations in our rental fleet, and additional OBX stations under construction in order to meet contracted demand. We expect to make significant financial investments into our OBX rental fleet during fiscal year 2019.

Reservoir Products

Seismic surveys repeated over selected time intervals show dynamic changes within the reservoir and can be used to monitor the effects of oil and gas development and production. In this regard, we have developed permanently installed high-definition reservoir monitoring systems for land and ocean-bottom applications in producing oil and gas fields. We also produce a retrievable version of our ocean-bottom system for use on fields where permanently installed systems are not appropriate or economical. Utilizing these tools, producers can enhance the recovery of oil and gas deposits over the life of a reservoir.

Our high-definition reservoir monitoring products include the HDSeis™ product line and a suite of borehole and reservoir monitoring products and services. Our HDSeis™ system is a high-definition seismic data acquisition system with flexible architecture that allows it to be configured as a borehole seismic system or as a subsurface system for both land and marine reservoir-monitoring projects. The scalable architecture of the HDSeis™ system enables custom designed system configuration for applications ranging from low-channel engineering and environmental-scale surveys requiring a minimum number of recording channels to high-channel surveys required to efficiently conduct permanent reservoir monitoring ("PRM"). Modular architecture allows virtually unlimited channel expansion. In addition, multi-system synchronization features make the HDSeis™ system well-suited for multi-well or multi-site acquisition, simultaneous surface and downhole acquisition and continuous reservoir monitoring projects.

Reservoir monitoring requires special purpose or custom designed systems in which portability becomes less critical and functional reliability assumes greater importance. This reliability factor helps assure successful operations in inaccessible locations over a considerable period of time. Additionally, reservoirs located in deep water or harsh environments require special instrumentation and new techniques to maximize recovery. Reservoir monitoring also requires high-bandwidth, high-resolution seismic data for engineering project planning and reservoir management. We believe our HDSeis™ System and tools, designed for cost-effective deployment and lifetime performance, will make borehole and seabed seismic acquisition a cost-effective and reliable process for the challenges of reservoir monitoring. Our multi-component seismic product developments include an omni-directional geophone for use in reservoir monitoring, a compact marine three-component or four-component gimbaled sensor and special-purpose connectors, connector arrays and cases.

We have not received any orders for large-scale seabed PRM systems since November 2012 and we currently do not have any indication that such an order will be received in fiscal year 2019, although we do believe opportunities for PRM orders do exist in today's market.

In addition, we produce seismic borehole acquisition systems which employ a fiber optic augmented wireline capable of very high data transmission rates. These systems are used for several reservoir monitoring applications, including an application pioneered by us allowing operators and service companies to monitor and measure the results of fracturing operations.

Adjacent Markets

Our Adjacent Markets businesses leverage upon our existing manufacturing facilities and engineering capabilities. We have found that many of our oil and gas seismic products, with little or no modification, have direct application to industries beyond those involved in oil and gas exploration and development.

Industrial Products

Our industrial products include water meter products, imaging equipment, offshore cables, as well as seismic sensors used for vibration monitoring and geotechnical applications such as mine safety applications and earthquake detection.

Imaging Products

Our imaging products include electronic pre-press products that employ direct thermal imaging and digital inkjet printing technologies targeted at the commercial graphics, industrial graphics, textile and flexographic printing industries.

Emerging Markets

Our Emerging Markets business segment consists of our recent acquisition of Quantum. Quantum's product developments include a proprietary detection system called SADAR®, which detects, locates and follows activities of interest in real-time. Using the SADAR® technology, Quantum designs and sells products used for border and perimeter security surveillance, cross-border tunneling detection and other products targeted at movement monitoring, intrusion detection and situational awareness. Quantum's customers include various agencies of the U.S. government including the Department of Defense, Department of Energy, Department of Homeland Security and other agencies.

Business Strategy

We have experienced several years of very low demand for most of the products we sell and rent into our Oil and Gas Markets. We are now seeing signs of increased oil and gas exploration activities brought about by improving market prices for crude oil. Specifically, we are seeing significant rental demand for certain of our oil and gas products used to gather seismic data on the ocean-bottom and we are allocating capital resources to the production of these products. Conversely, depressed demand continues for our marine PRM systems and our land-focused seismic products. As a result, we have adopted what we think is a conservative and prudent business strategy which places a focus on sound financial management practices. We have not changed our primary focus on continued investment in product research and development and, possibly, selective acquisitions and joint ventures.

- *Continue Investment in Product Research and Development* – Past periods of revenue growth were primarily driven through our internal development of new products for the oil and gas industry. In past years, our oil and gas product innovations included the introduction of borehole seismology tools, land and seabed PRM systems and wireless data acquisition systems for both land and marine applications. These innovative technologies are the result of our unceasing investment in research and development initiatives, even during difficult industry cycles when we experience a significant decline in customer demand for our products. A majority of our product research and development cost relates to our product engineers. Our engineering staff has been key to our past success, and we intend to continue our tradition of retaining and attracting quality engineering staff and providing appropriate compensation and benefits. Going forward, we intend to continue significant investments in product research and development of new oil and gas technologies as well as products for our other business segments in order to diversify and grow our revenue base.

- *Selectively Pursue Acquisitions of Businesses with Technological and Engineering Overlap* – The oil and gas industry periodically experiences volatile business cycles requiring us to rapidly increase and decrease our business activities to meet the industry's demand for our products. This industry generally offers equipment manufacturers like us limited visibility into new orders creating challenges for us to manage our manufacturing capacity, workforce, inventories and other working capital challenges. While our primary growth initiative is to expand our oil and gas seismic product offerings, we may also seek out other business opportunities in adjacent markets and emerging markets which complement our existing oil and gas seismic products, engineering and manufacturing capabilities, and company-wide culture. In order to diversify our revenue base and expose us to different markets with different business cycles, we may direct these efforts toward businesses outside the oil and gas industry, as recently seen with our acquisition of Quantum.
- *Financial Management* – Industry conditions since fiscal year 2014 have required us to place increased emphasis on cash management and preservation. Due to the cyclicality of the oil and gas industry, we have historically managed our financial risk by limiting or eliminating debt leverage in our balance sheet. While we are not opposed to moderate amounts of short-term debt during favorable business cycles, we choose to minimize our exposure to long-term debt obligations which, in our view, restrict our ability to operate during periodic difficult business cycles in the oil and gas industry similar to the recent business environment. We believe this strategy has allowed us to continue operations through difficult business cycles without disruption for debt and equity restructuring as has been seen among our peers, many of whom have significant long-term debt burdens. In addition, we have limited our investments in capital assets and have liquidated, and made appropriate reserves for, significant amounts of our inventories and rental fleet assets. We also believe that the value of our common shares outstanding will be best served in the long-term by retaining our cash and short-term investments to fund future cash outflows as they become necessary or advisable. In this regard, we do not anticipate paying any cash dividends in the foreseeable future, nor do we expect to initiate any significant buy-back program to repurchase our common stock.

Competition

Oil and Gas Products

We are one of the world's largest designers and manufacturers of seismic products used in the oil and gas industry. The principal competitors for many of our traditional seismic products are Sercel (a division of CGG), ION Geophysical ("ION") and INOVA (a joint venture formed in 2009 between ION and Bureau of Geophysical Prospecting, a subsidiary of China National Petroleum Company). Furthermore, entities in China affiliated with Sercel, as well as other Chinese manufacturers produce low-cost oil and gas seismic products meeting current industry standards.

The primary competitors for our land wireless data acquisition systems are Sercel, FairfieldNodal, INOVA and numerous smaller entities who have introduced similar versions of wireless data acquisition systems. We believe the primary competitors for our marine nodal data acquisition systems are marine seismic data acquisition service providers like FairfieldNodal ("Fairfield"), Seabed Geosolutions (a joint venture formed between Fugro and CGG) and Magseis ASA ("Magseis"), each of whom utilizes their own proprietary nodal technology. On October 30, 2018, Magseis announced that it intended to purchase the seismic technologies business of Fairfield.

Most oil and gas seismic products are price sensitive, so the ability to manufacture these products at a low cost is essential to maintain market share. While price is an important factor in a customer's decision to purchase a land or marine wireless data acquisition system, we believe customers also place a high value on a product's historical performance and the ongoing engineering and field support provided by the product's manufacturer.

The principal keys for success in the seismic instruments and equipment market are technological superiority, product durability under harsh field conditions, reliability and customer support. Product deliverability is always an important consideration for our customers.

In general, most customers prefer to standardize data acquisition systems, geophones and hydrophones, particularly if they are used by seismic companies that have multiple crews which are able to support each other. This standardization makes it difficult for competitive manufacturers to gain market share from other manufacturers with existing customer relationships.

Our primary competitors for the rental of our traditional and wireless seismic equipment are Mitcham Industries, Inc. and Seismic Equipment Solutions.

Our primary competitor for our seabed PRM systems is Alcatel-Lucent. We believe our primary competitors for high-definition borehole seismic data acquisition systems are Avalon Sciences Ltd and Sercel.

Adjacent Markets Products

Our industrial and imaging products face competition from numerous domestic and international specialty product manufacturers.

Emerging Markets Products

The border and perimeter security marketplace is dominated by large integrated system providers such as Boeing, General Dynamics, Lockheed Martin, Raytheon, Elbit Systems and others. Systems provided by these competitors are generally multifaceted and may include numerous integrated surveillance technologies, including the geophysical sensor and software systems that we have developed. Our sensing technology does not rely on line-of-sight motion detection, which is required by cameras and other optical technologies. This allows our technology to detect things a camera would miss. Competitive geophysical technologies utilizing fiber optic sensing techniques are provided by OptaSense, Fibersensys, Future Fiber Technologies and other specialty sensor manufacturing firms.

Suppliers

We purchase raw materials from a variety of suppliers located in various countries. We typically have multiple suppliers for our critical materials. In our oil and gas seismic business segment, certain models of our marine wireless products use a timing device manufactured by a single supplier. We currently do not possess the ability to manufacture this component and have no other reliable source for this device. In our Adjacent Markets business segment, we purchase all of our imaging thermal film from a single supplier. Beyond this film supplier, we know of no other source for thermal film that performs as well in our imaging equipment. For a discussion of the risks related to our reliance on these suppliers, see "Risk Factors – We Rely on Key Suppliers for Certain Components Used in Our Products."

We do not currently experience any significant difficulties in obtaining raw materials from our suppliers for the production of our products.

Product Manufacturing and Assembly

Our manufacturing and product assembly operations consist of machining, molding or cabling the necessary component parts, configuring these parts along with components received from various vendors and assembling a final product. We manufacture many of our oil and gas seismic products to the specifications required by our customers. For example, we can armor cables for use in multiple deep water applications. We assemble geophone strings based on a number of customer choices such as length, gauge, tolerance and color of molded parts. Upon completion of our manufacturing and assembly operations, we test our final products to the functional and environmental extremes of product specifications and inspect the products for quality assurance. Consistent with industry practice, we normally manufacture our products based on firm customer orders, anticipated customer orders and historical product demand. As a result of the steep decline in product demand that began in fiscal year 2014 and that was further aggravated by the decline in crude oil prices, we currently hold significant levels of inventories.

Markets and Customers

Our principal customers for our traditional and wireless seismic products are seismic contractors and, to a lesser extent, major independent and government-owned oil and gas companies that either operate their own seismic crews or specify seismic instrument and equipment preferences to contractors. For our deep water PRM products, our customers are generally large international oil and gas companies that operate long-term offshore oil and gas producing properties. Our industrial product customers consist of specialty manufacturers, research institutions and industrial product distributors. Our imaging customers primarily consist of direct users of our equipment as well as specialized resellers that focus on the screen-printing and flexographic printing industries. Our border and perimeter security customers are primarily government agencies. Our corporate customer is a rental tenant in a building facility we own.

One customer comprised 10.4% of our revenue during fiscal year 2018. One customer comprised 17.8% of our revenue during fiscal year 2017. One customer comprised 18.5% of our revenue during fiscal year 2016. The following table describes our revenue by customer segment type (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Traditional seismic exploration product revenue	$ 12,855	$ 14,756	$ 13,298
Wireless seismic exploration product revenue	27,254	29,690	18,400
Seismic reservoir product revenue	4,842	2,663	2,094
Industrial product revenue	18,352	14,420	16,223
Imaging product revenue	11,580	11,607	11,485
Border & perimeter security product revenue	286	—	—
Corporate revenue	579	585	560
Total revenue	$ 75,748	$ 73,721	$ 62,060

Intellectual Property

We seek to protect our intellectual property by means of patents, trademarks, trade secrets and other measures. We hold patents on geophones, micro-geophones, piezo-electric sensors, seismic data acquisition, in-line retrieval devices and water meter connectors, and we have pending applications on related technology. We do not consider any single patent essential to our success. Our patents are scheduled to expire at various dates through 2035. We are not able to predict the effect of any patent expiration. We protect our proprietary rights to our technology through a variety of methods, including confidentiality agreements and proprietary information agreements with suppliers, employees, consultants and others who may have access to proprietary information.

Research and Development

We expect to incur significant future research and development expenditures aimed at the development of additional products for each of our business segments. We have incurred company-sponsored research and development expenses of $10.8 million, $13.8 million and $13.9 million during the fiscal years ended September 30, 2018, 2017 and 2016, respectively.

Employees

As of September 30, 2018, we employed 726 people predominantly on a full-time basis, of which 460 were employed in the United States, 230 in the Russian Federation and the remainder in the United Kingdom, Canada, China and Colombia. A majority of our employees in the Russian Federation belong to a regional union for machine manufacturers. Our remaining employees are not unionized. We have never experienced a work stoppage and consider our relationship with our employees to be satisfactory.

Financial Information by Segment and Geographic Area

For a discussion of financial information by segment and geographic area, see Note 22 to the consolidated financial statements contained in this Annual Report on Form 10-K. For a description of risks attendant to our foreign operations, please see "Risk Factors - Our Foreign Subsidiaries and Foreign Marketing Efforts Are Subject to Additional Political, Economic, Legal and Other Uncertainties Not Generally Associated with Domestic Operations."

Available Information

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission ("SEC"). Our SEC filings are available to the public over the internet at the SEC's website at www.sec.gov. You may also read and copy any document we file at the SEC's public reference room at 100 F Street, NE, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on their public reference room. Our SEC filings are also available to the public on our website at www.geospace.com. Please note that information contained on our website, whether currently posted or posted in the future, is not a part of this Annual Report on Form 10-K or the documents incorporated by reference in this Annual Report on Form 10-K.

Item 1A. Risk Factors

Risk Factors

Commodity Price Levels May Affect Demand for Our Oil and Gas Products, Which Has and Could Continue to Materially and Adversely Affect Our Results of Operations and Liquidity

Demand for many of our products and the profitability of our operations depend primarily on the level of worldwide oil and gas exploration activity. Prevailing oil and gas prices, with an emphasis on crude oil prices, and market expectations regarding potential changes in such prices significantly affect the level of worldwide oil and gas exploration activity. During periods of improved energy commodity prices, the capital spending budgets of oil and natural gas operators tend to expand, which results in increased demand for our products. Conversely, in periods when these energy commodity prices deteriorate, capital spending budgets of oil and natural gas operators tend to contract and the demand for our products generally weakens. Historically, the markets for oil and gas have been volatile and are subject to wide fluctuation in response to changes in the supply of and demand for oil and gas, market uncertainty and a variety of additional factors that are beyond our control. These factors include the level of consumer demand, supplies of oil and natural gas, regional and international economic conditions, weather conditions, domestic and foreign governmental regulations (including those related to climate change), price and availability of alternative fuels, political conditions, instability and hostilities in the Middle East and other significant oil-producing regions, increases and decreases in the supply of oil and gas, the effect of worldwide energy conservation measures and the ability of OPEC to set and maintain production levels and prices of foreign imports.

Slowing economic growth in growing economies like those in China and India could lead to a decline in demand for crude oil and natural gas. Slowdowns in economic activity would likely reduce worldwide demand for energy and result in an extended period of lower crude oil and natural gas prices. Any material changes in oil and gas prices or other market trends that adversely impact seismic exploration activity would likely affect the demand for our products and could materially and adversely affect our results of operations and liquidity.

Generally imbalances in the supply and demand for oil and gas will affect oil and gas prices and, in such circumstances, demand for our oil and gas products may be adversely affected when world supplies exceed demand.

Our New Products Require a Substantial Investment by Us in Research and Development Expense and May Not Achieve Market Acceptance

Our outlook and assumptions are based on various macro-economic factors and internal assessments, and actual market conditions could vary materially from those assumed. In recent years, we have incurred significant expenditures to fund our research and development efforts, and we intend to continue those expenditures in the future. However, research and development is by its nature speculative, and we cannot assure you that these expenditures will result in the development of new products or services or that any new products and services we have developed recently or may develop in the future will be commercially marketable or profitable to us. In particular, we have incurred substantial expenditures to develop our oil and gas nodal seismic data acquisition systems, as well as other products for PRM applications. In addition, we try to use some of our capabilities to supply products to new adjacent and emerging markets. We cannot assure you that we will realize our expectations regarding acceptance of and revenue generated by our new products and services in existing or new markets.

The Short Term Nature of Our Order Backlog for our Oil and Gas Products and Delayed or Canceled Customer Orders May Cause Us to Experience Fluctuations in Quarterly Results of Operations

Historically, the rate of new orders for our oil and gas products has varied substantially from quarter to quarter. Moreover, we typically operate, and expect to continue operating, on the basis of orders in-hand for our products before we commence substantial manufacturing “runs.” The short-term nature of our order backlog for most of our oil and gas products generally does not allow us to predict with any accuracy demand for our products more than approximately three months in advance. Thus, our ability to replenish orders and the completion of orders, particularly large orders for deep water PRM projects, can significantly impact our operating results and cash flow for any quarter, and results of operations for any one quarter may not be indicative of results of operations for future quarters.

Additionally, customers can delay or even cancel orders and rental contracts before product delivery occurs. For larger orders which generally require us to make a substantial capital investment in our inventories or rental fleet, we attempt to negotiate for a non-refundable deposit or cancellation penalties depending on our relationship with the customer. However, such deposits or penalties, even when obtained, may not fully compensate us for our inventory investment and forgone profits if the order is ultimately cancelled.

These periodic fluctuations in our operating results and the impact of any order delays/cancellations could adversely affect our stock price.

Our Credit Risk Could Increase and We May Incur Bad Debt Write-Offs If Our Customers Continue to Face Difficult Economic Circumstances

We believe that our allowance for bad debts is adequate in light of known circumstances. However, additional amounts attributable to uncollectible accounts and notes receivable and bad debt write-offs may have a material adverse effect on our future results of operations. Many of our oil and gas customers are not well capitalized and as a result cannot always pay our invoices when due. We have in the past incurred write-offs in our accounts and notes receivable due to customer credit problems. We have found it necessary from time to time to extend trade credit, including promissory notes, to long-term customers and others where some risks of non-payment exist. While we are now seeing increasing crude oil prices, many of our oil and gas customers continue to experience significant liquidity difficulties, which increase those credit risks. An increase in the level of bad debts and any deterioration in our credit risk could adversely affect the price of our stock. In addition, we rent equipment to our oil and gas customers who utilize such equipment in various countries around the world. If these customers experience financial difficulties, it could be difficult or impossible to retrieve our rental equipment from foreign countries.

The Industries in Which We Operate are Characterized by Rapid Technological Development and Product Obsolescence, Which May Affect Our Ability to Provide Product Enhancements or New Products on a Timely and Cost Effective Basis

Our instruments and equipment are constantly undergoing rapid technological improvement. Our future success depends on our ability to continue to:

- improve our existing product lines,
- address the increasingly sophisticated needs of our customers,
- maintain a reputation for technological leadership,
- maintain market acceptance of our products,
- anticipate changes in technology and industry standards,
- respond to technological developments on a timely basis and
- develop new markets for our products and capabilities.

Current competitors or new market entrants may develop new technologies, products or standards that could render our products obsolete. We cannot assure you that we will be successful in developing and marketing, on a timely and cost effective basis, product enhancements or new products that respond to technological developments, that are accepted in the marketplace or that comply with new industry standards. Additionally, in anticipation of customer product orders, from time to time we acquire substantial quantities of inventories, which if not sold or integrated into products within a reasonable period of time, could become obsolete. In such case, we would be required to impair the value of such inventories on our balance sheet.

We Operate in Highly Competitive Markets and Our Competitors May Be Able to Provide Newer or Better Products Than We Are Able to Provide

The markets for most of our products are highly competitive. Many of our existing and potential competitors have substantially greater marketing, financial and technical resources than we do. Some competitors currently offer a broader range of instruments and equipment for sale than we do and may offer financing arrangements to customers on terms that we may not be able to match. In addition, new competitors may enter the market and competition could intensify.

We cannot assure you that revenue from our products will continue at current volumes or prices if current competitors or new market entrants introduce new products with better features, performance, price or other characteristics than our products. Competitive pressures or other factors may also result in significant price competition that could have a material adverse effect on our results of operations.

The Limited Market for Our Oil and Gas Markets and Emerging Markets Products Can Affect Our Revenue

In our Oil and Gas Markets segment, we generally market many of our products to seismic service contractors. We estimate that fewer than 30 oil and gas seismic contracting companies are currently operating in countries other than those operating in the Russian Federation and the former Soviet Union, India, the People's Republic of China and certain Eastern European countries, where such information is difficult to verify. We estimate that fewer than 15 seismic contractors are engaged in marine seismic exploration activities. Due to these market factors, a relatively small number of customers, some of whom are experiencing financial difficulties, account for most of our oil and gas product revenue. From time to time, these contractors have sought to vertically integrate and acquire our competitors, which has influenced their supplier decisions before and after such transactions. In addition, consolidation among our customers may further concentrate our business to a limited number of customers and expose us to increased risks related to dependence on a small number of customers. We market our seabed PRM systems products to large oil and gas companies. Since this product's introduction in 2002, we have received system orders from three offshore oil and gas operators: BP, Shell and Statoil, which have accounted for a significant portion of our revenue in fiscal year 2014 and prior fiscal years. We did not deliver nor have we received orders for any PRM systems since 2014. Our emerging markets segment currently sells its products to a small number of agencies within the United States government. The loss of a small number of these customers, and particularly our oil and gas customers, could materially and adversely impact our future revenues.

We Cannot Be Certain of the Effectiveness of Patent Protection on Our Products

We hold and from time to time apply for certain patents relating to some of our products. We cannot assure you that our patents will prove enforceable or free of challenge, that any patents will be issued for which we have applied or that competitors will not develop functionally similar technology outside the protection of any patents we have or may obtain.

Our Foreign Subsidiaries and Foreign Marketing Efforts Are Subject to Additional Political, Economic, Legal and Other Uncertainties Not Generally Associated with Domestic Operations

Based on customer billing data, revenue to customers outside the United States accounted for approximately 29% of our revenue during fiscal year 2018; however, we believe the percentage of revenue outside the United States is likely higher since many of our products are first delivered to a domestic location and ultimately shipped to a foreign location. We again expect revenue outside of the United States to represent a substantial portion of our revenue for fiscal year 2019 and subsequent years.

Foreign revenue is subject to special risks inherent in doing business outside of the United States, including the risk of war, terrorist activities, civil disturbances, embargo and government activities, shifting foreign attitudes about conducting business activities with the United States, restrictions of the movement and exchange of funds, inhibitions of our ability to collect accounts receivable, international sanctions, expropriation and nationalization of our assets or those of our customers, currency fluctuations, devaluations and conversion restrictions, confiscatory taxation or other adverse tax policies and governmental actions that may result in the deprivation of our contractual rights, all of which may disrupt markets or our operations.

A portion of our oil and gas product manufacturing is conducted through our subsidiary Geospace Technologies Eurasia LLC, which is based in the Russian Federation. Our oil and gas business could be directly affected by political and economic conditions in the Russian Federation, including the current geopolitical instability involving the Russian Federation, Ukraine and Syria. United States sanctions against Russia have been expanded to preclude export of oil and gas equipment anywhere in the world that involve persons designated under the sanctions and to include projects in which persons subject to the sanctions have a 33% ownership interest. Together, these changes make it more difficult for us to support projects that have the potential to produce oil involving Russian energy companies. Furthermore, if an exporter is unable to determine whether its equipment will be used in such projects, the export is prohibited. In fiscal year 2018, we imported $1.5 million of products from Geospace Technologies Eurasia LLC for resale elsewhere in the world. If imports of these products from the Russian Federation are restricted by government regulation, we may be forced to find other sources for the manufacture of these products at potentially higher costs. Boycotts, protests, unfavorable regulations, additional governmental sanctions and other actions in the region could also adversely affect our ability to operate profitably. Delays in obtaining governmental approvals can affect our ability to timely deliver our products pursuant to contractual obligations, which could result in us being liable to our customers for damages. The risk of doing business in the Russian Federation and other economically or politically volatile areas could adversely affect our operations and earnings.

Foreign revenue is also generally subject to the risk of compliance with additional laws, including tariff regulations and import and export restrictions. International revenue transactions for our products containing hydrophones require prior U.S. government approval in the form of an export license, which may be withheld by the U.S. government based upon factors which we cannot predict.

We may experience difficulties in connection with future foreign revenue. Additionally, due to foreign laws and restrictions, should we experience substantial growth in certain foreign markets, for example in the Russian Federation, we may not be able to transfer cash balances to the United States to assist with debt servicing or other obligations.

Increases in Tariffs, Trade Restrictions or Taxes on our Products Could Have an Adverse Impact on our Operations.

In fiscal year 2018, customers outside the United States accounted for 29% of our revenues. We also purchase a portion of our raw materials from suppliers in China and other foreign countries. The commerce we conduct in the international marketplace makes us subject to tariffs, trade restrictions and other taxes when the raw materials we purchase, and the products we ship, cross international borders. Trade tensions between the United States and China, as well as those between the U.S. and Canada, Mexico and other countries have been escalating in recent months. Most notably, three rounds of U.S. tariffs were placed on Chinese goods being exported to the U.S., with such tariffs taking effect in July, August and September 2018. Each of these U.S. tariff impositions against

Chinese exports were followed by a round of retaliatory Chinese tariffs on U.S. exports to China. We believe that certain raw materials we purchase from China could become subject to these tariffs which could increase our manufacturing costs. Products we sell into certain foreign markets could also become subject to similar retaliatory tariffs, making the products we sell uncompetitive to similar products not subjected to such import tariffs. Further changes in U.S. trade policies, tariffs, taxes, export restrictions or other trade barriers, or restrictions on raw materials including rare earth minerals, may limit our ability to produce products, increase our manufacturing costs, decrease our profit margins, reduce the competitiveness of our products, or inhibit our ability to sell products or purchase raw materials, which could have a material adverse effect on our business, results of operations or financial conditions.

Our Global Operations Expose Us to Risks Associated with Conducting Business Internationally, Including Failure to Comply with U.S. Laws Which Apply to International Operations, Such as the Foreign Corrupt Practices Act and U.S. Export Control Laws, as well as the Laws of Other Countries

We have offices in Colombia, Canada, China, the Russian Federation and the United Kingdom, in addition to our offices in the United States. In addition to the risks noted above that are inherent in conducting business internationally, we are also liable for compliance with international and U.S. laws and regulations that apply to our international operations. These laws and regulations include data privacy requirements, labor relations laws, tax laws, anti-competition regulations, import and trade restrictions, export control laws, U.S. laws such as the Foreign Corrupt Practices Act and similar laws in other countries which also prohibit certain payments to governmental officials or certain payments or remunerations to customers. Many of our products are subject to U.S. export law restrictions that limit the destinations and types of customers to which our products may be sold, or require an export license in connection with revenue transactions outside the United States. Given the high level of complexity of these laws, there is a risk that some provisions may be inadvertently breached, for example through the negligent or the unauthorized intentional behavior of individual employees, our failure to comply with certain formal documentation requirements or otherwise. Additionally, we may be held liable for actions taken by our local dealers and partners. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers or our employees, and prohibitions on the conduct of our business. Any such violations could include prohibitions on our ability to offer our products in one or more countries and could materially damage our reputation, our brands, our international expansion efforts, our ability to attract and retain employees, our business and our operating results.

Our Strategy of Renting our Oil and Gas Seismic Products Exposes Us to Additional Risks Relating to Equipment Recovery, Rental Renewals, Technological Obsolescence and Impairment of Assets

Our rental fleet of oil and gas equipment represents a significant portion of our assets and accounts for a growing portion of our revenue. Equipment we rent to our customers is frequently located in foreign countries where retrieval of the equipment after the termination of the rental agreement is difficult or impossible if the customer does not return the equipment. The costs associated with retrieving this equipment or the loss of equipment that is not retrieved could be significant and could adversely affect our operations and earnings.

The advancement of seismic technology having a significant competitive advantage over the equipment in our rental fleet could have an adverse effect on our ability to profitably rent and/or sell this equipment. Significant improvements in technology may also require us to record asset impairment charges to write-down the value of our rental fleet investment and to invest significant sums to upgrade or replace our rental fleet with newer equipment demanded by our customers. In addition, rental contracts may not be renewed for equipment in our rental fleet. Significant technology improvements by our competitors could have an adverse effect on our results of operations and earnings.

Our equipment rental business has high fixed costs, which primarily consist of depreciation expenses. In periods of declining rental revenue, these fixed costs generally do not decline. As a result, any significant decline in rental revenue caused by reduced demand could adversely affect our results of operations.

Our Expansion Into the Border and Perimeter Security Market May Not Be Successful

We have not previously operated in the border and perimeter security marketplace. Quantum is also a relatively recent entrant into this marketplace, and Quantum was not cash-flow positive when we acquired it. We will devote management time and resources, financial and otherwise, to develop our business in this marketplace. Our lack of experience and success up to this point in this market makes it difficult to estimate our financial returns, if any, from this business. In addition, some of the customers for this business will be governmental entities and contracting with those entities can be difficult, costly, and unpredictable. We do not have extensive experience in government contracting, and so we may not win, retain, or perform under such contracts in a manner that is profitable. If we are not successful in this emerging market segment, it will negatively impact our financial performance and could negatively impact our reputation and harm our other business segments.

Cybersecurity Breaches and Other Disruptions of Our Information Technology Network and Systems Could Adversely Affect Our Business

We rely on information technology networks and systems, some of which are owned and operated by third parties, to process, transmit and store electronic information. In particular, we depend on our information technology infrastructure for a variety of functions, including worldwide financial reporting, inventory management, procurement, invoicing and email communications. Any of these systems may be susceptible to outages due to fire, floods, power loss, telecommunications failures, terrorist attacks and similar events. Despite the implementation of network security measures, our systems and those of third parties on which we rely may also be vulnerable to computer viruses, break-ins, malware and similar disruptions. Malware, if surreptitiously installed on our systems and not timely detected and removed, could collect and disclose sensitive information relating to our customers, employees or others, exposing us to legal liability and causing us to suffer reputational damage. It could also lead to disruptions in critical systems or the corruption or destruction of critical data. If we are unable to prevent such outages and breaches, these events could damage our reputation and lead to financial losses from remedial actions, loss of business or potential liability.

Because We Have No Plans to Pay Any Dividends for the Foreseeable Future, Investors Must Look Solely to Stock Appreciation for a Return on Their Investment in Us

We have not paid cash dividends on our common stock since our incorporation and do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain any future earnings to support our operations and growth. Any payment of cash dividends in the future will be dependent on the amount of funds legally available, our financial condition, capital requirements, loan covenants and other factors that our Board of Directors may deem relevant. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment.

Unfavorable Currency Exchange Rate Fluctuations Could Adversely Affect Our Results of Operations

Substantially all of our third-party revenue from the United States is invoiced in U.S. dollars, though from time to time we may invoice revenue transactions in foreign currencies including intercompany sales. As a result, we may be subject to foreign currency fluctuations on our revenue. The reporting currency for our financial statements is the U.S. dollar. However, the assets, liabilities, revenue and costs of our Russian, Canadian and United Kingdom subsidiaries and our Chinese and Colombian branch offices are denominated in currencies other than U.S. dollars. To prepare our consolidated financial statements, we must translate those assets, liabilities, revenue and expenses into U.S. dollars at then-applicable exchange rates. Consequently, increases and decreases in the value of the U.S. dollar versus these other currencies will affect the amount of these items in our consolidated financial statements, even if their value has not changed in their original currency. These translations could result in significant changes to our results of operations from period to period. For the fiscal year ended September 30, 2018, approximately 18.1% of our consolidated revenue related to the operations of our foreign subsidiaries and branches.

We Have a Relatively Small Public Float, and Our Stock Price May be Volatile

At September 30, 2018, we have approximately 13.0 million shares outstanding held by non-affiliates. This limited number of shares outstanding results in a relatively limited market for our common stock. Our daily trading volume for the year ended September 30, 2018 averaged approximately 80,000 shares. Our small float and daily trading volumes have in the past caused, and may in the future result in, significant volatility in our stock price.

We Rely on Key Suppliers for Certain Components Used in Our Products

Certain models of our oil and gas marine wireless products require a timing device we purchase from a United States manufacturer. We currently do not possess the ability to manufacture this component and have no other reliable source for this device. If this manufacturer were to discontinue its production of this timing device, were to become unwilling to contract with us on competitive terms or were unable to supply the component in sufficient quantities to meet our requirements, our ability to compete in the marine wireless marketplace could be impaired, which could adversely affect our financial performance.

For our imaging products, we purchase all of our thermal film from a European manufacturer. Except for the film sold to us by this manufacturer, we know of no other source for thermal film that performs as well in our imaging equipment. If the European manufacturer were to discontinue producing thermal film, were to become unwilling to contract with us on competitive terms or were unable to supply thermal film in sufficient quantities to meet our requirements, our ability to compete in the direct thermal imaging marketplace could be impaired, which could adversely affect our financial performance.

Our Success Depends Upon a Limited Number of Key Personnel

Our success depends on attracting and retaining highly skilled professionals. A number of our employees are highly skilled engineers and other professionals. In addition, our success depends to a significant extent upon the abilities and efforts of the members of our senior management team. If we fail to continue to attract and retain such professionals, our ability to compete in the industry could be adversely affected.

A Continued General Downturn in the Economy in Future Periods May Adversely Affect Our Business

Slowing growth in China and India and any other economic slowdown in future periods, could adversely affect our business in ways that we cannot predict. During times of economic slowdown, our customers may reduce their capital expenditures and defer or cancel pending projects and product orders. Such developments occur even among customers that are not experiencing financial difficulties. Any economic downturn may adversely affect the demand for oil and gas generally or cause volatility in oil and gas commodity prices and, therefore, adversely affect the demand for delivery of our oil and gas products. It could also adversely affect the demand for consumer and industrial products, which could in turn adversely affect our Adjacent Markets business segment. To the extent these factors adversely affect other companies in the industries we serve, there could be an oversupply of products and services and downward pressure on pricing for our products and services, which could adversely affect us. Additionally, bankruptcies or financial difficulties among our oil and gas customers could reduce our cash flows and adversely impact our liquidity and profitability. See "The Limited Market for Our Oil and Gas Products Can Affect Our Revenue," above.

We Have a Minimal Disaster Recovery Program at Our Houston Facilities

Due to its proximity to the Texas Gulf Coast, our facilities in Houston, Texas are annually subject to the threat of hurricanes, and the aftermath that follows. Hurricanes may cause, among other types of damage, the loss of electrical power for extended periods of time. If we lost electrical power at our Pinemont facility, or if a fire or other natural disaster occurred, we would be unable to continue our manufacturing operations during the power outage because we do not own a generator or any other back-up power source large enough to provide for our manufacturing power consumption needs. Additionally, we do not have an alternative manufacturing or operating location in the United States. Therefore, a significant disruption in our manufacturing operations could materially and adversely affect our business operations during an extended period of a power outage, fire or other natural disaster. We have a back-up generator to provide power for our information technology operations. We store our back-up data offsite and we replicate our mission critical data to an alternative cloud-based data center on a real-time basis. In the event of a major service interruption in our data center, we believe we would be able to activate our mission critical applications within less than 24 hours.

Our Credit Agreement Imposes Restrictions on Our Business

We and several of our subsidiaries are parties to a credit agreement with a bank. Amounts available for borrowing under the credit agreement are determined by a borrowing base, which is determined based upon the book value of certain of our assets. The credit agreement limits the incurrence of additional indebtedness, requires the maintenance of a single financial ratio that compares certain of our and our U.S. subsidiaries' assets to certain of our liabilities, restricts our and our U.S. subsidiaries' ability to pay cash dividends and contains other covenants customary in agreements of this type. Our ability to comply with these restrictions may be affected by events beyond our control, including, but not limited to, prevailing economic, financial and industry conditions and continuing declines in our product revenue. The breach of any of these covenants or restrictions, as well as any failure to make a payment of interest or principal when due, could result in a default under the credit agreement. Such a default would permit our lender to declare any amounts borrowed from it to be due and payable, together with accrued and unpaid interest, and the ability to borrow under the credit agreement could be terminated. If we are unable to repay any debts owed to our lender, the lender could proceed against the collateral securing that debt. While we intend to seek alternative sources of cash in such a situation, there is no guarantee that any alternative cash source would be available or would be available on terms favorable to us.

Reliance on Third Party Subcontractors Could Adversely Affect Our Results of Operations and Reputation

We may rely on subcontractors to complete certain projects. The quality and timing of production and services by our subcontractors is not totally under our control. Reliance on subcontractors gives us less control over a project and exposes us to significant risks, including late delivery, substandard quality and high costs. The failure of our subcontractors to deliver quality products or services in a timely manner could adversely affect our profitability and reputation.

The High Fixed Costs of Our Operations Could Adversely Affect Our Results of Operations

We have a high fixed cost structure primarily consisting of (i) depreciation expenses associated with our rental equipment and (ii) fixed manufacturing costs including salaries and benefits, taxes, insurance, maintenance, depreciation and other fixed manufacturing costs. In regards to our rental equipment, large declines in the demand for rental equipment could result in substantial operating losses due to the on-going fixed nature of rental equipment depreciation expense. Concerning our product manufacturing costs, in periods of low product demand our fixed costs generally do not decline or may decline only in modest increments. Therefore lower demand for our rental equipment and manufactured products could adversely affect our results of operations.

Our Long-Lived Assets May be Subject to Impairment

We periodically assess our long-lived assets for impairment. Significant sustained future decreases in crude oil and natural gas prices may require us to write down the value of our long-lived assets in our Oil and Gas Markets business segment, including our manufacturing facilities, manufacturing equipment and rental equipment if future cash flows anticipated to be generated from these assets fall below the asset's net book value. Furthermore, we may be required to write down the value of goodwill and other intangible assets if our acquisition of Quantum does not generate sufficient cash flows to recover the carrying value of such assets. If we are forced to write down the value of our long-lived assets, these noncash asset impairments could adversely affect our results of operations.

Should We Fail to Maintain an Effective System of Internal Control Over Financial Reporting, We May Not Be Able to Accurately Report Our Financial Results and Prevent Material Fraud, Which Could Adversely Affect the Value of Our Common Stock

Effective internal control over financial reporting is necessary for us to provide reliable financial reports and effectively prevent and detect material fraud. If we cannot provide reliable financial reports or prevent or detect material fraud, our operating results could be misstated. There can be no assurances that we will be able to prevent control deficiencies from occurring and which could cause us to incur unforeseen costs, negatively impact our results of operations, cause the market price of our common stock to decline, or have other potential adverse consequences.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

As of September 30, 2018, our operations included the following locations:

Location	Owned/Leased	Approximate Square Footage/Acreage	Use	Segment (see notes below)
Houston, Texas	Owned	387,000	See Note 1 below	6 and 7
Houston, Texas	Owned	77,000	See Note 2 below	9
Houston, Texas	Owned	30,000	See Note 3 below	6
Houston, Texas	Owned	17.3 acres	See Note 4 below	6
Cocoa Beach, Florida	Leased	10,000	See Note 5 below	8
Ufa, Bashkortostan, Russia	Owned	120,000	Manufacturing, sales and service	6
Calgary, Alberta, Canada	Owned	45,000	Manufacturing, sales and service	6 and 7
Luton, Bedfordshire, England	Owned	8,000	Sales and service	7
Beijing, China	Leased	1,000	Sales and service	6
Bogotá, Colombia	Owned	19,000	Sales and service	6

(1) This property is located at 7007 Pinemont Drive in Houston, Texas (the "Pinemont Facility"). The Pinemont Facility contains substantially all manufacturing activities and all engineering, selling, marketing and administrative activities for us in the United States. The Pinemont Facility also serves as our international corporate headquarters.

(2) This property is located at 7334 N. Gessner in Houston, Texas. The property previously contained a manufacturing operation and certain support functions. The property is currently leased to a tenant under a lease agreement which expires in July 2020.

(3) This property is located at 6410 Langfield Road in Houston, Texas. This facility provides additional warehousing and testing capacity for our manufacturing operations.

(4) This property is located adjacent to the Pinemont Facility. It is currently being used as additional parking for the Pinemont Facility and legacy structures are being used to support our manufacturing and warehousing operations.
(5) This property is located at 1980 N. Atlantic Avenue, Suite 201, Cocoa Beach, Florida. This facility contains all the operations of Quantum.
(6) Oil and Gas Markets.
(7) Adjacent Markets
(8) Emerging Markets
(9) Corporate Office

Item 3. Legal Proceedings

We are involved in various pending legal actions in the ordinary course of our business. Management is unable to predict the ultimate outcome of these actions, because of the inherent uncertainty of litigation. However, management believes that the most probable, ultimate resolution of currently pending matters will not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Item 4. Mine Safety Disclosures

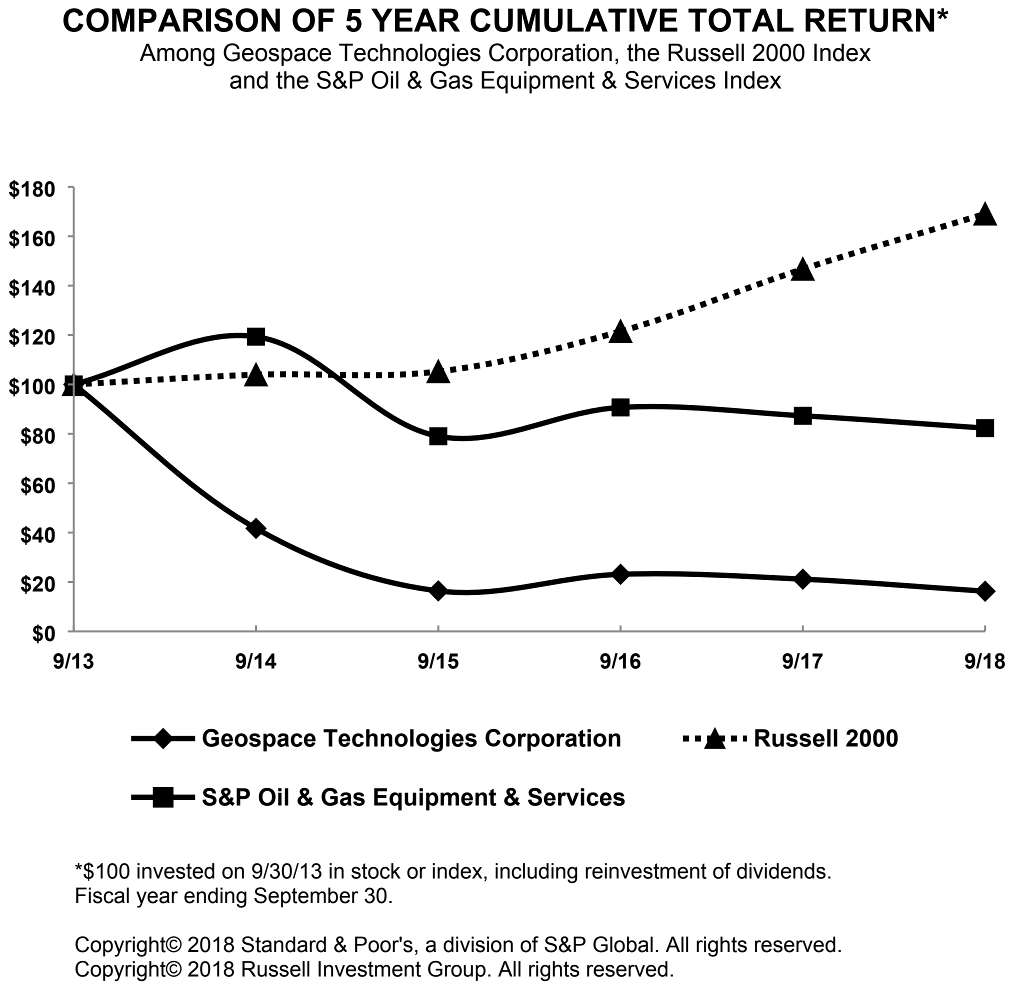
None.

PART II

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

Stock Performance Graph

The following graph compares the performance of the Company's common stock with the performance of the Russell 2000 index and the Standard & Poor's Oil & Gas Equipment and Services index as of each of the dates indicated.



The graph assumes $100 invested on September 30, 2013 (a) in the Company's common stock, (b) in the stocks comprising the Russell 2000 index on that day and (c) in the stocks comprising the Standard & Poor's Oil & Gas Equipment and Services index on that day. Reinvestment of all dividends on stocks comprising the two indices is assumed. The foregoing graphs are based on historical data and are not necessarily indicative of future performance. These graphs shall not be deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulations 14A or 14C under the Securities Exchange Act of 1934, as amended (the "Exchange Act") or to the liabilities of Section 18 of the Exchange Act.

Holders of Record

Our common stock is traded on The NASDAQ Global Market under the symbol "GEOS". On October 31, 2018, there were approximately 136 holders of record of our common stock, and the closing price per share on such date was $12.73 as quoted by The NASDAQ Global Market.

Market Information for Common Stock

The following table shows the high and low per share sales prices for our common stock reported on The NASDAQ Global Market.

Year Ended September 30, 2018:	Low	High
Fourth Quarter	$ 12.68	$ 15.12
Third Quarter	9.46	14.81
Second Quarter	9.18	15.66
First Quarter	12.09	18.71
Year Ended September 30, 2017:		
Fourth Quarter	$ 13.08	$ 17.99
Third Quarter	13.59	17.04
Second Quarter	13.80	24.37
First Quarter	16.77	23.20

Dividends

Since our initial public offering in 1997, we have not paid dividends, and we do not intend to pay cash dividends on our common stock in the foreseeable future. We presently intend to retain our earnings for use in our business, with any future decision to pay cash dividends dependent upon our growth, profitability, financial condition and other factors our Board of Directors may deem relevant. Our existing credit agreement also has covenants that restrict our ability to pay dividends. For a discussion of our credit agreement, see the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations – Liquidity and Capital Resources" contained in this Annual Report on Form 10-K.

Securities Authorized for Issuance under Equity Compensation Plans

The following equity plan information is provided as of September 30, 2018:

Equity Compensation Plan Information

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)
	(In shares)	(In dollars per share)	(In shares)
Equity Compensation Plans Approved by Security Holders (1)	190,100	$ 17.81	691,388
Equity Compensation Plans Not Approved by Security Holders	—	—	—
Total	190,100	$ 17.81	691,388

(1) The number of securities shown in column (c) represents number of securities remaining available for issuance under the Company's 2014 Long Term Incentive Plan (the "2014 Plan"), which was approved by the Board and shareholders in February 2014. The 2014 Plan allows for the issuance of restricted stock awards, performance stock awards, performance stock unit awards, restricted stock unit awards (the foregoing, "Full Value Awards"), stock options and stock appreciation rights. For purposes of calculating the number of securities remaining under the 2014 Plan in column (c), Full Value Awards are counted as 1.5 shares for each share awarded. The number of securities shown in column (a) of the table above represents the 120,600 stock options outstanding under the 2014 Plan and 69,500 stock options outstanding under the 1997 Key Employee Stock Option Plan.

Recent Sales of Unregistered Securities and Use of Proceeds

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data

The following table sets forth certain selected historical financial data on a consolidated basis. We have derived the selected consolidated financial information as of September 30, 2018 and 2017 and for fiscal years 2018, 2017 and 2016 from our audited consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K. We have derived the selected consolidated financial information as of September 30, 2016, 2015 and 2014 and for fiscal years 2015 and 2014 from audited consolidated information not included herein. The selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 and our consolidated financial statements beginning on page F-1 of this Annual Report on Form 10-K.

	YEAR ENDED SEPTEMBER 30,				
	2018	2017	2016	2015	2014
	(in thousands, except share and per share amounts)				
Statement of Operations Data:					
Revenue	$ 75,748	$ 73,721	$ 62,060	$ 84,867	$ 236,912
Cost of revenue	64,776	94,404	81,423	96,067	140,453
Gross profit (loss)	10,972	(20,683)	(19,363)	(11,200)	96,459
Operating expenses:					
Selling, general and administrative	19,874	20,238	21,533	22,671	25,291
Research and development	10,832	13,782	13,851	14,694	16,536
Goodwill impairment	—	—	—	1,843	—
Bad debt expense (recovery)	1,009	(380)	763	2,147	833
Total operating expenses	31,715	33,640	36,147	41,355	42,660
Income (loss) from operations	(20,743)	(54,323)	(55,510)	(52,555)	53,799
Other income (expense), net	951	215	177	2,721	(256)
Income (loss) before income taxes	(19,792)	(54,108)	(55,333)	(49,834)	53,543
Income tax expense (benefit)	(580)	2,683	(9,363)	(17,193)	16,632
Net income (loss)	$ (19,212)	$ (56,791)	$ (45,970)	$ (32,641)	$ 36,911
Net income (loss) per share:					
Basic	$ (1.45)	$ (4.32)	$ (3.52)	$ (2.51)	$ 2.82
Diluted	$ (1.45)	$ (4.32)	$ (3.52)	$ (2.51)	$ 2.81
Weighted average shares outstanding:					
Basic	13,250,867	13,134,071	13,044,875	12,996,958	12,950,958
Diluted	13,250,867	13,134,071	13,044,875	12,996,958	12,997,009
Other Financial Data:					
Depreciation and amortization expenses	$ 14,412	$ 17,766	$ 19,914	$ 19,547	$ 17,774
Impairment of long-lived assets	573	5,331	1,814	—	—
Inventory obsolescence expense	4,353	21,472	11,212	3,887	2,617
Stock-based compensation expense	2,318	5,732	5,220	4,539	4,119
Capital expenditures	8,234	1,632	2,369	6,162	33,511

	AS OF SEPTEMBER 30,				
	2018	2017	2016	2015	2014
	(in thousands)				
Balance Sheet Data:					
Total assets	$ 199,080	$ 205,696	$ 254,772	$ 303,592	$ 354,986
Stockholders' equity	176,587	195,154	244,467	289,624	329,258

We did not declare or pay any cash dividends during any of the periods noted in the above tables.

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

The following is management's discussion and analysis of the major elements of our consolidated financial statements. You should read this discussion and analysis together with our consolidated financial statements, including the accompanying notes, and other detailed information appearing elsewhere in this Annual Report on Form 10-K, including under the heading "Risk Factors." The discussion of our financial condition and results of operations includes various forward-looking statements about our markets, the demand for our products and services and our future plans and results. These statements are based on assumptions that we consider to be reasonable, but that could prove to be incorrect. For more information regarding our assumptions, you should refer to the section entitled "Cautionary Note Regarding Forward-Looking Statements and Assumptions" below.

Cautionary Note Regarding Forward-Looking Statements and Assumptions

This Annual Report on Form 10-K and the documents incorporated by reference herein, if any, contain "forward-looking" statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements can be identified by terminology such as "may", "will", "should", "intend", "expect", "plan", "budget", "forecast", "anticipate", "believe", "estimate", "predict", "potential", "continue", "evaluating" or similar words. Statements that contain these words should be read carefully because they discuss our future expectations, contain projections of our future results of operations or of our financial position or state other forward-looking information. Examples of forward-looking statements include, among others, statements that we make regarding our expected operating results, the results and success of our transactions with Quantum and the OptoSeis® technology, the adoption and sale of our products in various geographic regions, anticipated levels of capital expenditures and the sources of funding therefore, and our strategy for growth, product development, market position, financial results and the provision of accounting reserves. These forward-looking statements reflect our current judgment about future events and trends based on the information currently available to us. However, there will likely be events in the future that we are not able to predict or control. The factors listed under the caption "Risk Factors", as well as cautionary language in this Annual Report on Form 10-K, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Such examples include, but are not limited to, the failure of the Quantum or OptoSeis® technology transactions to yield positive operating results, decreases in commodity price levels, which could reduce demand for our products, the failure of our products to achieve market acceptance, despite substandital investment by us, our sensitivity to short term backlog, delayed or cancelled customer orders, product obsolescence resulting from poor industry conditions or new technologies, bad debt write-offs associated with customer accounts, lack of further orders for our OBX systems, failure of our Quantum products to be adopted by the border and perimeter security markets, infringement or failure to protect intellectual property, the failure of the acquisition transaction to yield positive results, and any negative impact from our restatement of our financial statements regarding current assets. The occurrence of the events described in these risk factors and elsewhere in this Annual Report on Form 10-K could have a material adverse effect on our business, results of operations and financial position, and actual events and results of operations may vary materially from our current expectations. We assume no obligation to revise or update any forward-looking statement, whether written or oral, that we may make from time to time, whether as a result of new information, future developments or otherwise.

Background

We design and manufacture seismic instruments and equipment and primarily market these products to the oil and gas industry to locate, characterize and monitor hydrocarbon producing reservoirs. We also market our seismic products to other industries for vibration monitoring, border and perimeter security and various geotechnical applications. We design and manufacture other products of a non-seismic nature, including water meter products, imaging equipment and offshore cables. See the information under the heading "Business" in this Annual Report on Form 10-K.

Consolidated Results of Operations

As we have reported in the past, our revenue and operating profits have varied significantly from quarter-to-quarter, and even year-to-year, and are expected to continue that trend in the future, especially when our quarterly or annual financial results are impacted by the presence or absence of relatively large, but somewhat erratic, sales of our oil and gas PRM systems and/or wireless seismic data acquisition systems for land and marine applications.

Our revenue and results of operations have not been materially impacted by inflation or changing prices in the past three fiscal years.

We report and evaluate financial information for three segments: Oil and Gas Markets, Adjacent Markets and Emerging Markets. Summary financial data by business segment follows (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Oil and Gas Markets			
Traditional exploration product revenue	$ 12,855	$ 14,756	$ 13,298
Wireless exploration product revenue	27,254	29,690	18,400
Reservoir product revenue	4,842	2,663	2,094
Total revenue	44,951	47,109	33,792
Operating loss	(14,070)	(46,902)	(47,690)
Adjacent Markets			
Industrial product revenue	18,352	14,420	16,223
Imaging product revenue	11,580	11,607	11,485
Total revenue	29,932	26,027	27,708
Operating income	5,345	4,153	4,093
Emerging Markets			
Revenue	286	—	—
Operating loss	(718)	—	—
Corporate			
Revenue	579	585	560
Operating loss	(11,300)	(11,574)	(11,913)
Consolidated Totals			
Revenue	75,748	73,721	62,060
Operating loss	(20,743)	(54,323)	(55,510)

Overview

Early in calendar year 2014, we experienced a softening in the demand for our seismic exploration products, particularly in North America, as capital budgets for oil and gas producers were trending away from exploration-focused activities toward production and exploitation activities. During this period oil production in North America's unconventional shale reservoirs increased, as did oil production from other non-OPEC countries, resulting in an oversupply of crude oil in the world market. Market prices for a barrel of WTI crude oil declined from over $100 in July 2014 to approximately $26 in February 2016, and have recovered to approximately $56 today. With this decline in oil prices, oil and gas exploration and production companies experienced a significant reduction in cash flows, which resulted in sharp reductions in their capital spending budgets for oil and gas exploration-focused activities, including seismic data acquisition activities. While we are now seeing some signs of increased seismic activity around the world, the need for new seismic equipment remains restrained due to capital limitations affecting many of our customers along with excess levels of unutilized equipment. While we are seeing significant demand for the rental of our marine wireless seismic products, we expect revenue from the sale of our land-based seismic products, and in particular our traditional and wireless products, to remain low until exploration-focused seismic activities increase due to the ongoing depletion of existing reservoirs prompting the need to find new sources of oil and gas. We expect these challenging industry conditions will continue in fiscal year 2019.

In September 2017, Statoil requested quotes for two new PRM systems which were required to utilize fiber optic sensor technology. Since our PRM designs utilize electrical sensor technology, we were not invited to participate with a quotation for the design and manufacture of these PRM systems. This contract was subsequently awarded to Alcatel in January 2018. The technology direction taken by Statoil, combined with the absence of any new PRM orders of any technology type since November 2012, caused us to record $5.1 million of obsolescence reserves and $5.3 million of impairment reserves in September 2017 related to our PRM inventories and related manufacturing equipment, respectively. On November 13, 2018, we announced our acquisition of all the intellectual property and related assets of the OptoSeis® fiber optic sensing technology business from PGS Americas, Inc. With this technology, we now offer both electrical and fiber optic sensing technologies.

In December 2017, we initiated a program to reduce operating costs in light of expected and continuing low levels of oil and gas product demand. The program is expected to produce approximately $6 million of annualized cash savings. The majority of the future cost reductions were realized through the reduction of over 60 employees from our Houston area workforce. In connection with the workforce reductions, we incurred $0.7 million of termination costs in our first quarter of fiscal year 2018. The termination costs were recorded to both cost of revenue and operating expenses in the consolidated statement of operations. No further termination costs are expected and there are no outstanding liabilities related to this program as of September 30, 2018.

Fiscal Year 2018 Compared to Fiscal Year 2017

Consolidated revenue for fiscal year 2018 increased $2.0 million, or 2.7%, from fiscal year 2017. The increase in revenue for fiscal year 2018 was primarily due to an increase in our Adjacent Markets product revenue.

Consolidated gross profit for fiscal year 2018 was $11.0 million, compared to a loss of ($20.7) million for fiscal year 2017. The improvement in gross profit (loss) resulted from (i) an $8.2 million increase in rental revenue combined with a $2.4 million decline in depreciation expense associated with rental equipment, (ii) a $17.1 million decrease in inventory obsolescence expense, and (iii) a reduction in fixed manufacturing costs primarily resulting from workforce reductions occurring in the first quarter of fiscal year 2018. Since fiscal year 2014, reduced demand for the sale of our oil and gas products has caused our factory to be under-utilized. Until demand increases significantly for these products, we expect our consolidated gross margins for our oil and gas products to remain below historic norms.

In light of current market conditions, our oil and gas product inventories at September 30, 2018 continue to exceed levels considered appropriate for the current level of product demand. While we are aggressively working to reduce these legacy inventory balances, we are also adding new inventories for recent product developments and other product demand. During periods of excessive inventory levels, our policy has been, and will continue to be, to record obsolescence expense in our consolidated income statement as we experience reduced levels of inventory turnover and as our inventories continue to age. If difficult market conditions continue for our oil and gas products, we expect to record additional inventory obsolescence expense in fiscal year 2019 and beyond until product demand and resulting inventory turnover returns to acceptable levels.

Consolidated operating expenses for fiscal year 2018 were $31.7 million, a decrease of $1.9 million, or 5.7%, from the corresponding period of the prior fiscal year. The decrease in operating expenses was primarily due to lower stock-based compensation expense, workforce reductions and a decline in research and development project costs. The decrease was partially offset by an increase in bad debt expense and $0.8 million of additional operating expenses resulting from the Quantum acquisition, including intangible asset amortization expense of $0.2 million.

Consolidated other income for fiscal year 2018 was $1.0 million, compared to $0.2 million from fiscal year 2017. The increase in other income was primarily due to an increase in interest income on a financing receivable entered into in June 2017 and an increase in net foreign exchange gains, partially offset by an increase in foreign currency hedge financing fees.

Consolidated income tax expense (benefit) for fiscal year was $(0.6) million compared to $2.7 million for fiscal year 2017. Our effective tax rates for fiscal year 2018 and 2017 were 2.9% and (5.0)%, respectively. The United States statutory tax rate for fiscal year 2018 and 2017 were 24.5% (blended) and 35%, respectively. Compared to the United States statutory rate, the lower effective tax rates for fiscal year 2018 and 2017 primarily resulted from our inability to recognize any tax benefits for the tax losses we incurred in the U.S. and Canada due to the uncertainty surrounding our ability to utilize these losses in the future to offset taxable income. For fiscal year 2017, we recorded tax expenses for (i) U.S. income taxes paid in prior years resulting from the sale of rental equipment to our foreign subsidiaries and (ii) the recognition of a valuation allowance against foreign taxes withheld from rental revenues invoiced into foreign taxing jurisdiction. In addition, for fiscal year 2018, the Company amended its prior year U.S. tax return and received a $0.7 million refund.

Fiscal Year 2017 Compared to Fiscal Year 2016

Consolidated revenue for fiscal year 2017 increased $11.7 million, or 18.8% from fiscal year 2016. The increase in revenue for fiscal year 2017 was primarily due to an increase in revenue from our seismic business segment, driven by an increase in demand for our wireless exploration products, including the sale of 45,000 GSX channels in our fourth quarter.

Consolidated gross profit (loss) for fiscal year 2017 was a loss of ($20.7) million, compared to a loss of ($19.4) million for fiscal year 2016. The decline in gross profit (loss) for fiscal year 2017 was primarily due to a $10.3 million increase in inventory obsolescence expenses and a $5.3 million increase in equipment impairment charges. The decline was partially offset by an increase in wireless exploration product sales and, to a lesser extent, a decrease in manufacturing costs resulting from the Company's workforce reduction in the second fiscal quarter of 2016.

Consolidated operating expenses for fiscal year 2017 were $33.6 million, a decrease of $2.5 million, or 6.9%, from fiscal year 2016. This decrease was primarily attributable to the Company's cost reduction program implemented during the second fiscal quarter of 2016 and, to a lesser extent, a decrease in bad debt expense.

Consolidated other income for fiscal year 2017 was flat from fiscal year 2016. An increase in interest income from our short-term investments and notes receivable was offset by an increase in foreign exchange losses attributable to U.S. dollar deposits held by our Russian subsidiary.

Consolidated income tax expense (benefit) for fiscal year 2017 was $2.7 million compared to ($9.4) million for the corresponding period of the prior fiscal year. Our effective tax rates for fiscal year 2017 and 2016 were 5.0% and (16.9)%, respectively. The United States statutory tax rate for the same periods was 35%. Compared to the United States statutory rate, the lower effective tax rates for fiscal year 2017 resulted from our inability to recognize any tax benefits for the tax losses we incurred in the U.S. and Canada due to the uncertainty surrounding our ability to utilize these losses in the future to offset taxable income. In addition, for fiscal year 2017, we recorded tax expenses for (i) U.S. income taxes paid in prior years resulting from the sale of rental equipment to our foreign subsidiaries and (ii) the recognition of a valuation allowance against foreign taxes withheld from rental revenues invoiced into foreign taxing jurisdiction. For fiscal year 2016, the lower effective tax rate resulted primarily from our inability to recognize tax benefits for the tax losses we incurred in the U.S. and Canada due to the uncertainty of their utilization; however, we were able to recognize an income tax benefit of $13.1 million related to our ability to carryback certain U.S. tax losses to obtain a refund of taxes paid in previous years.

Segment Results of Operations

Oil and Gas Markets

Fiscal Year 2018 Compared to Fiscal Year 2017

Revenue

Revenue from our oil and gas products for fiscal year 2018 decreased $2.2 million, or 4.6%, from the prior fiscal year. The components of this decrease include the following:

- *Traditional Exploration Product Revenue* – Revenue from our traditional products decreased $1.9 million, or 12.9% from the prior fiscal year. The decrease primarily reflects lower demand for our specialty sensor products.
- *Wireless Exploration Product Revenue* – Revenue from our wireless exploration products decreased $2.4 million, or 8.2%, from the prior fiscal year. This decrease was primarily due to lower OBX product sales, partially offset by an increase in both OBX and GSX wireless rental revenue.
- *Reservoir Product Revenue* – Revenue from our reservoir products increased $2.2 million, or 81.8%, from the prior fiscal year. The increase primarily reflects revenue received from the sale of borehole tools from our rental fleet and higher service revenue.

Operating Loss

Our operating loss associated with our Oil and Gas products for fiscal year 2018 decreased $32.8 million, or 70.0%, from the prior year. The reduction in our operating loss resulted from (i) an $8.2 million increase in rental revenue combined with a $2.4 million decline in depreciation expense associated with rental equipment, (ii) a $17.1 million decrease in inventory obsolescence expense, and (iii) a reduction in manufacturing and operating expenses primarily resulting from workforce reductions occurring in the first quarter of fiscal year 2018. Since fiscal year 2014, reduced demand for the sale of our oil and gas products has caused our factory to be under-utilized. Until demand increases significantly for these products, we expect our operating margins for our oil and gas products to remain below historic norms.

Fiscal Year 2017 Compared to Fiscal Year 2016

Revenue

Revenue from our Oil and Gas products for the fiscal year ended September 30, 2017 increased $13.3 million, or 39.4%, from the prior fiscal year. The components of this increase include the following:

- *Traditional Exploration Product Revenue* – Revenue from our traditional products increased $1.5 million, or 11.0% from the prior fiscal year. The increase primarily reflects higher demand for our geophone products, primarily in connection with the sale from our rental fleet of a GSX wireless system in our fourth quarter.
- *Wireless Exploration Product Revenue* – Revenue from our wireless exploration products increased by $11.3 million, or 61.4%, from the prior fiscal year. The increase was primarily due to higher demand for the sale of our OBX and GSX products and included the fourth quarter sale of 45,000 GSX channels from our rental fleet. This increase in revenue was partially offset by a decrease in OBX rental revenue.
- *Reservoir Product Revenue* – Revenue from our reservoir products increased $0.6 million, or 27.2%, from the prior fiscal year. The increase was primarily due to higher demand for our borehole products and reservoir monitoring services.

Operating Loss

Our operating loss from our Oil and Gas products for the fiscal year ended September 30, 2017 decreased $0.8 million, or 1.7%, from the prior year. The decrease in operating loss for fiscal year 2017 was primarily due to (i) increased wireless exploration product sales and (ii) lower manufacturing and operating costs due to workforce reductions initiated in the second fiscal quarter of 2016. This decrease was partially offset by an increase of $10.3 million in inventory obsolescence expense and $5.3 million in impairment charges on PRM manufacturing equipment.

Adjacent Markets

Fiscal Year 2018 Compared to Fiscal Year 2017

Revenue

Revenue from our Adjacent Markets products for fiscal year 2018 increased $3.9 million, or 15.0%, from the prior fiscal year. The components of these increases included the following:

- *Industrial Product Revenue and Services* – Revenue from our industrial products increased $3.9 million, or 27.3% from the prior fiscal year. The increase was primarily attributable to higher demand for our water meter products as well as higher revenue contributions from our contract manufacturing services.
- *Imaging Product Revenue* – Revenue from our imaging products decreased $27,000, or 0.2%, from the prior fiscal year. We consider this small change in revenue to be normal and not indicative of any particular trend in product demand.

Operating Income

Our operating income from our Adjacent Markets products for fiscal year 2018 increased $1.2 million, or 28.7%, from the prior fiscal year. The improvement in operating income resulted from increased gross profits realized on higher industrial product revenue and from decreased segment operating expenses.

Fiscal Year 2017 Compared to Fiscal Year 2016

Revenue

Revenue from our Adjacent Markets products for the year ended September 30, 2017 decreased $1.7 million, or 6.1%, from fiscal year 2016. The components of this decrease included the following:

- *Industrial Product Revenue and Services* – Revenue from our industrial products decreased $1.8 million, or 11.1% from the corresponding period of the prior fiscal year. The decrease was primarily attributable to lower demand for our water meter products.
- *Imaging Product Revenue* – Revenue from our imaging products increased $0.1 million, or 1.1%, from the corresponding period of the prior fiscal year. We consider this small change in annual revenue to be normal and not indicative of any particular trend in product demand.

Operating Income

Our operating income associated with sales of our Adjacent Markets products for the year ended September 30, 2017 increased by $0.1 million, or 1.4% from fiscal year 2016. The increase in operating income was primarily driven by price increases and manufacturing efficiencies.

Emerging Markets

On July 27, 2018, we entered the border and perimeter security market through our acquisition of Quantum. In connection with the Quantum acquisition, we established the Emerging Markets business segment, which currently includes only Quantum. Revenue from our Emerging Markets products for the period July 27, 2018 through September 30, 2018 was $0.3 million. Our operating loss for the same period was $0.7 million, including $0.2 million of intangible asset amortization expense.

Liquidity and Capital Resources

Fiscal Year 2018

At September 30, 2018, we had approximately $11.9 million in cash and cash equivalents and $25.5 million in short-term investments. For the fiscal year ended September 30, 2018, we used $10.4 million of cash in operating activities. In addition to our net loss of $19.2 million, we incurred other uses of cash in our operations including (i) a $5.1 million increase in trade accounts receivable resulting from the timing of collections from customers, (ii) a $4.3 million increase in inventories for the production of OBX products and recently introduced land-based wireless seismic products and (iii) the removal of a $6.8 million gross profit from the sale of used rental equipment since such gross profit is reflected in the proceeds from the sale of used rental equipment under investing activities. These uses of cash were offset by (i) net non-cash charges of $22.7 million from deferred income taxes, depreciation, amortization, impairment, accretion, inventory obsolescence, stock-based compensation and bad debt expense, (ii) a $1.3 million increase in accounts payable associated with inventory purchases and the timing of payments to suppliers, (iii) a $3.1 million increase in deferred revenue due to the receipt from customers of deposits for rental contracts and (iv) an increase of $1.0 million in accrued and other expenses.

For the fiscal year ended September 30, 2018, we generated cash of $7.8 million from investing activities. Sources of cash included (i) $10.5 million of net proceeds from the sale of short-term investments, (ii) $9.9 million of proceeds from the sale of rental equipment and (iii) $2.1 million in insurance proceeds and claims receivable related to a property insurance claim. These sources of cash were partially offset by (i) a down payment of $4.4 million for the Quantum acquisition, (ii) $6.5 million to expand our rental fleet, (iii) $1.7 million for additions to our property, plant and equipment and (iv) $2.4 million in payments for damages related to the insurance claim. As a result of significant demand for our marine OBX rental equipment, we expect fiscal year 2019 cash investments into our rental fleet to be $30 million or more. We estimate total fiscal year 2019 cash investments in property, plant and equipment will be approximately $3 million. Our capital expenditures are expected to be funded from our cash on hand, internal cash flows, cash flows from our rental contracts or, if necessary, from borrowings under our credit agreement.

For the fiscal year ended September 30, 2018, we generated cash proceeds of $63,000 from financing activities from the exercise of stock options by our employees. We had no long-term debt outstanding throughout the fiscal year ended September 30, 2018.

Recently, crude oil prices increased to their highest level in three years, although the current price level of crude oil remains significantly below the peak price levels seen in 2014. OPEC and other crude oil producing/exporting nations appear united in their efforts to maintain equilibrium between current worldwide crude oil supply and demand and these efforts have been successful in reducing the glut of crude oil in storage around the world. If these efforts to maintain an economic equilibrium in worldwide crude oil supplies are successful, crude oil prices may stabilize or possibly drift higher. These factors and developing trends bode well for the oil and gas industry and we expect to participate in any resurgence in demand for new seismic equipment that may be forthcoming. While we are seeing some signs of increased seismic activity around the world, the need for new seismic equipment remains restrained due to capital limitations affecting many of our customers along with excessive quantities of under-utilized equipment. We expect product sales of our oil and gas products, and in particular our land-based traditional and wireless products, to remain low until exploration-focused seismic activities increase, which we believe will result from the ongoing depletion of existing reservoirs prompting the need to find new sources of oil and gas. We expect these challenging industry conditions facing our land-based traditional and wireless products will continue into fiscal year 2019.

Our available cash, cash equivalents and short-term investments totaled $37.4 million at September 30, 2018, including $7.3 million of cash and cash equivalents held by our foreign subsidiaries and branch offices. The Tax Cuts and Jobs Act signed into law on December 22, 2017, creates new taxes on certain foreign earnings and also requires companies to pay a one-time transition tax on undistributed earnings of their foreign subsidiaries which were previously tax deferred. We have determined that we are not required to pay any transition tax on the undistributed earnings of our foreign subsidiaries since there were no accumulated earnings on a consolidated basis.

Our credit agreement allows for borrowings of up to $30.0 million with such amounts available for borrowing determined by a borrowing base. In October 2017, we extended the maturity of the credit agreement from May 2018 to April 2019. At September 30, 2018, we had no outstanding borrowings under the credit agreement and, after consideration of $0.3 million of outstanding letters of credit, our borrowing availability under the credit facility was $21.5 million. At September 30, 2018, we were in compliance with all covenants under the credit agreement. We currently do not anticipate the need to borrow under the credit agreement; however, we can make no assurance that we will not do so. On November 8, 2018, we further extended the maturity of the credit agreement from April 2019 to April 2020.

In fiscal years 2016, 2017 and 2018, we received income tax refunds of $18.3 million, $12.8 million and $0.7 million, respectively, from the U.S. Department of Treasury. These refunds were a result of the significant tax losses we experienced in fiscal years 2016 and 2015, which we elected to carryback and recoup taxes previously paid. For U.S. income tax purposes, we are now in a loss carryforward position in regards to our tax losses occurring in fiscal year 2017 and beyond. As a result, our current tax losses will not result in any additional U.S. federal income tax refunds. The tax refunds we received in fiscal years 2016 and 2017 were significant contributors to our overall liquidity. In the absence of future profitable results of operations, we may need to rely on other sources of liquidity to fund our future operating results, including liquidating short-term investments, executed rental contracts, available borrowings under our credit agreement through its expiration in April 2019, leveraging or sale of real estate assets, sales of rental assets and other liquidity sources which may be available to us. However, currently we believe that our cash and short-term investment balances will be sufficient to finance any future operating losses and planned capital expenditures through the next twelve months.

Fiscal Year 2017

At September 30, 2017, we had approximately $15.1 million in cash and cash equivalents and $36.1 million in short-term investments. For the fiscal year ended September 30, 2017, we generated $10.1 million of cash in operating activities primarily due to an income tax refund as discussed below. Our net loss of $56.8 million was offset by (i) net non-cash charges of $50.0 million from deferred income taxes, depreciation, accretion, inventory obsolescence, asset impairments, stock-based compensation and bad debts, (ii) income tax refunds totaling $13.0 million, (iii) a $7.7 million decrease in trade accounts and notes receivable resulting from collections, (iv) a $3.0 million decrease in inventories caused by a drawdown of our excess levels of finished goods and (v) a $2.2 million decrease in prepaid income taxes related to the depreciation of intercompany profits by our foreign subsidiary. These sources of cash were partially offset by (i) the removal of a $9.1 million gross profit from the sale of used rental equipment since such gross profit is reflected in the proceeds from the sale of used rental equipment under investing activities and (ii) $1.3 million decrease in accrued and other expenses primarily due to lower property taxes.

For the fiscal year ended September 30, 2017, we used cash of $5.5 million from investing activities. These uses of cash included (i) net disbursements of $8.7 million for the purchase of short-term investments, (ii) an investment of $1.2 million in property, plant and equipment and (iii) $0.5 million to expand our equipment rental fleet. These uses of cash were partially offset by $4.9 million in proceeds from the sale of used rental equipment. For the fiscal year ended September 30, 2017, we generated cash proceeds of $0.1 million from financing activities from the exercise of stock options by our employees. We had no long-term debt outstanding throughout the fiscal year ended September 30, 2017.

Fiscal Year 2016

At September 30, 2016, we had approximately $10.3 million in cash and cash equivalents and $27.5 million in short-term investments. For the fiscal year ended September 30, 2016, we used $1.7 million of cash in operating activities. These uses of cash included (i) our net loss of $46.0 million, (ii) a $3.4 million increase in trade accounts and notes receivable primarily due to amounts owed under the OBX Contract, (iii) a $1.9 million decrease in accounts payable primarily due to declining inventory purchases resulting from reduced product demand and (iv) a $2.1 million decrease in accrued and other expenses primarily due to settlements and reductions in expected warranty claims. These uses of cash were partially offset by (i) non-cash charges of $43.2 million from deferred income taxes, depreciation, accretion, stock-based compensation, inventory obsolescence, asset impairments and bad debts, (ii) a $4.1 million decrease in income tax receivable primarily resulting from an $18.3 million income tax refund received in fiscal year 2016, (iii) a $5.2 million decrease in inventories caused by a drawdown of our excess levels of finished goods, and (iv) a $1.5 million decrease in prepaid income taxes.

For the fiscal year ended September 30, 2016, we used cash of $10.2 million from investing activities. These uses of cash included (i) net disbursements of $9.4 million from the purchase and sale of short-term investments, (ii) $1.9 million for additions to our property, plant and equipment and (iii) $0.5 million to expand our rental equipment fleet, primarily for additional OBX nodes. In addition, we made non-cash inventory transfers to our rental fleet of approximately $4.0 million. These uses of cash were partially offset by $1.6 million in proceeds from the sale of used rental equipment.

For the fiscal year ended September 30, 2016, we had no cash flows from financing activities. We had no long-term debt outstanding at September 30, 2016.

Off-Balance Sheet Arrangements

We do not have any obligations which meet the definition of an off-balance sheet arrangement and which have or are reasonably likely to have a current or future effect on our financial statements or the items contained therein that are material to investors.

Contractual Obligations

The Company established an estimated initial contingent earn-out liability of $7.7 million in connection with the acquisition of Quantum. Contingent payments, if any, which may be paid in the form of cash or company stock, will be derived from certain eligible revenue that may be generated during the four-year earn-out period subsequent to the closing of the acquisition. The purchase agreement allows for the payment of a maximum contingent liability of up to $23.5 million over the four-year earn-out period.

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires the use of estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. We consider many factors in selecting appropriate operational and financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these financial statements. We continually evaluate our estimates, including those related to revenue recognition, bad debt reserves, inventory obsolescence reserves, self-insurance reserves for medical expenses, product warranty reserves, contingent earn-out liabilities, stock-based compensation and deferred income tax assets. We base our estimates on historical experience and various other factors, including the impact from the current economic conditions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different conditions or assumptions.

Our normal credit terms for trade receivables are 30 days. In certain situations, credit terms for trade receivables may be extended to 60 days or longer and such receivables generally do not require collateral. Additionally, we provide long-term financing in the form of promissory notes and sales-type leases when competitive conditions require such financing and, in such cases, we may require collateral. We perform ongoing credit evaluations of our accounts and financing receivables, and allowances are recognized for potential credit losses.

Our long-lived assets are reviewed for impairment whenever an event or change in circumstances indicates the carrying amount of an asset or group of assets may not be recoverable. The impairment review, if necessary, includes a comparison of expected future cash flows (undiscounted and without interest charges) to be generated by an asset group with the associated carrying value of the related assets. If the carrying value of the asset group exceeds the expected future cash flows, an impairment loss is recognized to the extent that the carrying value of the asset group exceeds its fair value.

Management makes judgments regarding the interpretation of tax laws that might be challenged upon an audit and cause changes to previous estimates of tax liability. In addition, we operate within multiple taxing jurisdictions and are subject to audit in these jurisdictions as well as by the Internal Revenue Service. In management's opinion, adequate provisions for income taxes have been made for all open tax years. The potential outcomes of examinations are regularly assessed in determining the adequacy of the provision for income taxes and income tax liabilities. Management believes that adequate provisions have been made for reasonable and foreseeable outcomes related to uncertain tax matters.

We record a write-down of our inventories when the cost basis of any manufactured product, including any estimated future costs to complete the manufacturing process, exceeds its net realizable value. Inventories are stated at the lower of cost or net realizable value. Cost is determined on a first-in, first-out method, except that our offices in the Russian Federation, Colombia and the United Kingdom use an average cost method to value their inventories.

We periodically review the composition of our inventories to determine if market demand, product modifications, technology changes, excessive quantities on-hand and other factors hinder our ability to recover our investment in such inventories. Management's assessment is based upon historical product demand, estimated future product demand and various other judgments and estimates. Inventory obsolescence reserves are recorded when such assessments reveal that portions or components of our inventory investment will not be realized in our operating activities.

The value of our inventories not expected to be realized in cash, sold or consumed during our next operating cycle are classified as non-current assets in our consolidated balance sheets.

We primarily derive our revenue from product sales and product rentals under short-term operating leases and sales type leases. Our products are produced in a standard manufacturing operation. We recognize revenue from product sales when (i) title passes to the customer, (ii) the customer assumes risks and rewards of ownership, (iii) the product sales price has been determined, (iv) collectability of the sales price is reasonably assured and (v) product delivery occurs as directed by our customer. We recognize rental revenue as earned over the rental period. Rentals of our equipment generally range from daily rentals to rental periods of up to six months or longer. Service revenue is recognized when services are rendered and are generally priced on a per day rate. Except for certain of our PRM products, our products are generally sold without any customer acceptance provisions and our standard terms of sale do not allow customers to return products for credit.

Most of our products do not require installation assistance or sophisticated instruction. We offer a standard product warranty, which obligates us to repair or replace our products having manufacturing defects. We maintain a reserve for future warranty costs based on historical experience or, in the absence of historical experience, management estimates.

Recent Accounting Pronouncements

Please refer to Note 1 to our consolidated financial statements contained in this Annual Report for a discussion of recent accounting pronouncements.

Management's Current Outlook and Assumptions

Regarding our Oil and Gas Markets business segment, prices for a barrel of WTI crude oil declined from over $100 in July 2014 to approximately $26 in February 2016, and have recovered to approximately $56 today. With this substantial net decline in oil prices, oil and gas exploration and production companies experienced a significant reduction in cash flows, which resulted in sharp reductions in their capital spending budgets for oil and gas exploration-focused activities, including seismic data acquisition activities. While we are now seeing some signs of increased oil and gas exploration activity around the world, the need for new seismic equipment remains restrained due to our customers' (i) limited capital resources, (ii) lack of visibility into future demand for their seismic services and (iii) in some cases, under-utilized legacy equipment.

Many of our traditional seismic products are damaged, destroyed or otherwise consumed during field operations. We do not expect fiscal year 2019 demand for our land-based traditional seismic products to exceed fiscal year 2018 levels since we expect continued low levels of land seismic contracting activities by most of our customers.

We have recently introduced the "GCL" which is a new version of our land-based wireless data recorder. This version contains several unique features not found in competitive models and we have received positive customer feedback regarding these features and its overall functionality. Despite the positive customer feedback, market demand remains constrained for the reasons cited above. While we believe the GCL will be a market leader similar to our GSX wireless unit, it is uncertain what revenue impact this product will have, if any, during fiscal year 2019 in light of the tepid market demand for oil and gas seismic services and equipment. However, we expect our fiscal year 2019 land-based wireless product revenue resulting from product rentals and rental equipment sales to match the levels we achieved in fiscal year 2018.

The majority of our oil and gas rental revenue in fiscal year 2018 was derived from short-term rentals of our wireless OBX ocean-bottom recorder. We believe our OBX rental revenue will increase substantially in fiscal year 2019 as a result of rental contracts we executed in fiscal year 2018, and the heightened demand we continue to see for this product.

We believe that fiscal year 2019 revenue from our oil and gas reservoir products, and principally our borehole tools and services, will be similar to the revenues we achieved in fiscal year 2018. We have not received any orders for large-scale seabed PRM systems since November 2012 and we currently do not have any indication that such an order will be received in fiscal year 2019, although we do believe opportunities for PRM orders do exist in today's market. If a large-scale order were received in fiscal year 2019, it could significantly impact our fiscal year 2019 revenue and profits.

We expect fiscal year 2019 revenue from our Adjacent Markets products to increase over fiscal year 2018 levels. We expect our industrial products to contribute the majority of this increase as a result of expanded market acceptance of our products targeted at the water meter industry.

We expect fiscal year 2019 revenue from our Emerging Markets products to increase over fiscal year 2018 levels as we only entered this market in July 2018.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We have market risk relative to our short-term investments, foreign currency exchange rates and interest rates. We do not engage in commodity or commodity derivative instrument purchase or sales transactions. Because of the inherent unpredictability of foreign currency rates and interest rates, as well as other factors, actual results could differ materially from those projected in this Item 7A.

Foreign Currency and Operations Risk

One of our wholly-owned subsidiaries, Geospace Technologies Eurasia, LLC is located in the Russian Federation. In addition, we operate a branch office, Geospace Technologies Sucursal Sudamericana, in Colombia. Our financial results for these entities may be affected by factors such as volatile changes in foreign currency exchange rates, weak economic conditions or changes in the political climate. Our consolidated balance sheet at September 30, 2018 reflected approximately $4.6 million and $0.1 million of foreign currency denominated net working capital related to our Russian and Colombian operations, respectively. Both of these entities receive a portion of their revenue and pay a majority of their expenses primarily in their local currency. To the extent that transactions of these entities are settled in their local currency, a devaluation of these currencies versus the U.S. dollar could reduce any contribution from these entities to our consolidated results of operations and total comprehensive income as reported in U.S. dollars. We do not hedge the market risk with respect to our operations in these countries; therefore, such risk is a general and unpredictable risk of future disruptions in the valuation of such currencies versus U.S. dollars to the extent such disruptions result in any reduced valuation of these foreign entities' net working capital or future contributions to our consolidated results of operations. At September 30, 2018, the foreign exchange rate for $1.00 (one U.S. dollar) was equal to 65.6 Russian Rubles and 2,960 Colombian Pesos, respectively. If the value of the U.S. dollar were to increase by ten percent against these foreign currencies, our working capital in the Russian Federation and in Colombia could decline by $0.5 million and $9,000, respectively.

Foreign Currency Intercompany Accounts and Financing Receivables

We sell products to our foreign subsidiaries on trade credit terms in both U.S. dollars and in the subsidiary's local currency. At September 30, 2018, we had outstanding Canadian-dollar denominated intercompany accounts receivable of CAN $20.4 million, which we consider to be of a short-term nature. The appreciation or devaluation of the Canadian dollar against the U.S. dollar will result in a gain or loss, respectively, to our consolidated statement of operations. At September 30, 2018, the foreign exchange rate for USD $1.00 was equal to approximately CAN $1.29. On September 28, 2018 we entered into a CAN $30.0 million short-term hedge contract with a United States bank to hedge a portion of our Canadian dollar foreign exchange rate exposure, resulting in an over-hedged position of approximately CAN $9.6 million. At September 30, 2018, if the U.S. dollar exchange rate were to weaken by ten percent against the Canadian dollar, we would recognize a foreign exchange loss of USD $0.7 million in our consolidated financial statements. On October 18, 2018, we settled CAN $10.0 million of the hedge and realized a $0.1 million loss.

Floating Interest Rate Risk

Our credit agreement contains a floating interest rate which subjects us to the risk of increased interest costs associated with any upward movements in bank market interest rates. Under our credit agreement our borrowing interest rate is the Wall Street Journal prime rate, which was 5.25% at September 30, 2018. As of September 30, 2018, there were no borrowings outstanding under our credit agreement.

Item 8. Financial Statements and Supplementary Data

Our consolidated financial statements, including the reports thereon, the notes thereto and supplementary data begin at page F-1 of this Annual Report on Form 10-K and are incorporated herein by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management is responsible for establishing and maintaining a system of disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified under SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"). Notwithstanding the foregoing, there can be no assurance that our disclosure controls and procedures will detect or uncover all failures of persons within the Company and its consolidated subsidiaries to report material information otherwise required to be set forth in our reports.

In connection with the preparation of this Annual Report on Form 10-K, we carried out an evaluation under the supervision and with the participation of our management, including the CEO and CFO, as of September 30, 2018 of the effectiveness of the Company's disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on that evaluation, the CEO and CFO concluded that our disclosure controls and procedures are effective as of September 30, 2018.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining effective internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of September 30, 2018. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control Integrated Framework (2013). Based on this assessment, our management concluded that, as of September 30, 2018, our internal control over financial reporting is effective based on those criteria.

Our internal control over financial reporting as of September 30, 2018 has been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control Over Financial Reporting

In the fourth quarter of our fiscal year ended September 30, 2018, we added and/or modified certain internal controls and processes in preparation of adopting the new revenue recognition standard in October 2018 under the modified retrospective approach. There have not been any additional changes in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) of the Exchange Act) during the fiscal quarter ended September 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item is contained in our definitive Proxy Statement to be distributed within 120 days of September 30, 2018 in connection with our 2019 Annual Meeting of Stockholders under the captions “Election of Directors,” “Executive Officers and Compensation,” “Section 16(a) Beneficial Ownership Reporting Compliance” and “Code of Ethics” and is incorporated herein by reference.

Item 11. Executive Compensation

The information required by this Item is contained in our definitive Proxy Statement to be distributed within 120 days of September 30, 2018 in connection with our 2019 Annual Meeting of Stockholders under the caption “Executive Officers and Compensation” and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item is contained in our definitive Proxy Statement to be distributed within 120 days of September 30, 2018 in connection with our 2019 Annual Meeting of Stockholders under the caption “Security Ownership of Certain Beneficial Owners and Management” and is incorporated herein by reference, and in Item 5, “Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities,” contained in Part II hereof.

Item 13. Certain Relationships and Related Transactions and Director Independence

The information required by this Item is contained in our definitive Proxy Statement to be distributed within 120 days of September 30, 2018 in connection with our 2019 Annual Meeting of Stockholders under the caption “Certain Relationships and Related Transactions” and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required by this Item is contained in our definitive Proxy Statement to be distributed within 120 days of September 30, 2018 in connection with our 2019 Annual Meeting of Stockholders under the caption “Independent Public Accountants” and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

Financial Statements and Financial Statement Schedules

The financial statements and financial statement schedules listed on the accompanying Index to Financial Statements (see page F-1) are filed as part of this Annual Report on Form 10-K.

Exhibits

Exhibit Number	Description of Documents
3.1	Amended and Restated Certificate of Formation of Geospace Technologies Corporation (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015).
3.2	Amended and Restated Bylaws of Geospace Technologies Corporation (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed September 22, 2017).
10.1	Employment Agreement dated as of August 1, 1997, between the Company and Michael J. Sheen (incorporated by reference to the Registrant's Registration Statement on Form S-1 filed September 30, 1997 (Registration No. 333-36727)).*
10.2	Employment Agreement effective as of January 1, 2012, by and between OYO Geospace Corporation and Walter R. Wheeler (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K filed December 9, 2011).*
10.3	Employment Agreement effective as of January 1, 2012, by and between OYO Geospace Corporation and Robbin B. Adams (incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K filed December 9, 2011).*
10.4	Employment Agreement effective as of January 1, 2012, by and between OYO Geospace Corporation and Thomas T. McEntire (incorporated by reference to Exhibit 99.3 to the Registrant's Current Report on Form 8-K filed December 9, 2011).*
10.5	OYO Geospace Corporation 1997 Key Employee Stock Option Plan (incorporated by reference to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 filed November 5, 1997 (Registration No. 333-36727)).*
10.6	Amendment No. 1 to OYO Geospace Corporation 1997 Key Employee Stock Option Plan, dated February 2, 1998 (incorporated by reference to Registrant's Annual Report on Form 10-K for the year ended September 30, 1998).*
10.7	Amendment No. 2 to OYO Geospace Corporation 1997 Key Employee Stock Option Plan, dated November 16, 1998 (incorporated by reference to Registrant's Annual Report on Form 10-K for the year ended September 30, 1998).*
10.8	Amendment No. 3 to OYO Geospace Corporation 1997 Key Employee Stock Option Plan, dated November 10, 2000 (incorporated by reference to the Registrant's Registration Statement on Form S-8 filed February 15, 2005 (Registration No. 333-122835)).*
10.9	Amendment No. 4 to OYO Geospace Corporation 1997 Key Employee Stock Option Plan, dated February 8, 2005 (incorporated by reference to the Registrant's Registration Statement on Form S-8 filed February 15, 2005 (Registration No. 333-122835)).*
10.10	Amendment No. 5 to OYO Geospace Corporation 1997 Key Employee Stock Option Plan, dated January 1, 2009 (incorporated by reference to Registrant's Annual Report on Form 10-K for the year ended September 30, 2013).*
10.11	Amendment No. 6 to OYO Geospace Corporation 1997 Key Employee Stock Option Plan, approved by stockholders August 20, 2013 (incorporated by reference to Registrant's Annual Report on Form 10-K for the year ended September 30, 2013).*

Exhibit Number	Description of Documents
10.12	Geospace Technologies Corporation 2014 Long-Term Incentive Plan (incorporated by reference to Appendix A to the Company's Proxy Statement on Schedule 14A filed on December 11, 2013).*
10.13	Form of Employee Restricted Stock Award Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Form S-8 filed May 21, 2014).*
10.14	Form of Employee Incentive Stock Option Award Agreement (incorporated by reference to Exhibit 10.2 to the Registrant's Form S-8 filed May 21, 2014).*
10.15	Form of Employee Non-Qualified Stock Option Award Agreement (incorporated by reference to Exhibit 10.3 to the Registrant's Form S-8 filed May 21, 2014).*
10.16	Form of Performance Option Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed November 20, 2015).*
10.17	Form of Consultant Restricted Stock Award Agreement (incorporated by reference to Exhibit 10.4 to the Registrant's Form S-8 filed May 21, 2014).*
10.18	Form of Consultant Stock Option Award Agreement (incorporated by reference to Exhibit 10.5 to the Registrant's Form S-8 filed May 21, 2014).*
10.19	Form of Director Stock Option Award Agreement (incorporated by reference to Exhibit 10.6 to the Registrant's Form S-8 filed May 21, 2014).*
10.20	Form of Director Restricted Stock Award Agreement (incorporated by reference to Exhibit 10.7 to the Registrant's Form S-8 filed May 21, 2014).*
10.21	Form of Amended and Restated Indemnity Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed May 26, 2015).*
10.22	Geospace Technologies Corporation Annual Bonus Program (incorporated by reference to Exhibit 10.23 to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2017 filed December 1, 2017).*
10.23	First Amendment effective October 1, 2008 to Employment Agreement dated as of August 1, 1997, between the Company and Michael J. Sheen (incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended December 31, 2009, filed February 5, 2010).*
10.24	Loan Agreement dated September 27, 2013 among Geospace Technologies Corporation, as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.1 of the registrant's Current Report on Form 8-K filed October 1, 2013).*
10.25	First Amendment to Loan Agreement effective September 27, 2013 among Geospace Technologies Corporation, as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.1 of the registrant's Current Report on Form 8-K filed December 18, 2013).*
10.26	Second Amendment to the Loan Agreement effective May 4, 2015 by and between Geospace Technologies Corporation as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015).*
10.27	Third Amendment to the Loan Agreement effective May 9, 2017 by and between Geospace Technologies Corporation as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.28 to the Registrant's Annual Report on Form 10-K for the year ended September 30, 2018 filed December 1, 2017).*

Exhibit Number	Description of Documents
10.28	Fourth Amendment to Loan Agreement dated October 25, 2017 among Geospace Technologies Corporation, as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.1 to the Registrant’s Current Report on Form 8-K filed October 27, 2017).*
10.29	Fifth Amendment to Loan Agreement dated November 9, 2018 among Geospace Technologies Corporation, as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.1 to the Registrants Current Report on Form 8-K filed November 13, 2018).*
10.30	Revolving Promissory Note effective May 4, 2015 by and between Geospace Technologies Corporation as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.2 to the Registrant’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed May 8, 2015).*
10.31	Waiver and Consent Letter to Loan Agreement effective April 6, 2015 among Geospace Technologies Corporation as borrower, certain subsidiaries of Geospace Technologies Corporation, as guarantors, and Frost Bank, as lender (incorporated by reference to Exhibit 10.1 to the Registrant’s Current Report on Form 8-K filed April 7, 2015).*
21.1	Subsidiaries of the Registrant.**
23.1	Consent of RSM US LLP.**
23.2	Consent of BDO USA, LLP. **
31.1	Certification of the Company’s Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.**
31.2	Certification of the Company’s Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.**
32.1	Certification of the Company’s Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.**
32.2	Certification of the Company’s Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.**
101	Interactive data file.**

* This exhibit is a management contract or a compensatory plan or arrangement.
** Filed herewith.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GEOSPACE TECHNOLOGIES CORPORATION

By: /s/ **WALTER R. WHEELER**
Walter R. Wheeler, Director, President and Chief Executive Officer
November 16, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ WALTER R. WHEELER Walter R. Wheeler	Director, President and Chief Executive Officer (Principal Executive Officer)	November 16, 2018
/s/ THOMAS T. MCENTIRE Thomas T. McEntire	Vice President, Chief Financial Officer and Secretary (Principal Financial Officer and Principal Accounting Officer)	November 16, 2018
/s/ GARY D. OWENS Gary D. Owens	Chairman of the Board	November 16, 2018
/s/ THOMAS L. DAVIS Thomas L. Davis	Director	November 16, 2018
/s/ **EDGAR R. GIESINGER, JR.** Edgar R. Giesinger, Jr.	Director	November 16, 2018
/s/ **TINA M. LANGTRY** Tina M. Langtry	Director	November 16, 2018
/s/ **RICHARD F. MILES** Richard F. Miles	Director	November 16, 2018
/s/ **WILLIAM H. MOODY** William H. Moody	Director	November 16, 2018
/s/ **MICHAEL J. SHEEN** Michael J. Sheen	Director	November 16, 2018
/s/ **CHARLES H. STILL** Charles H. Still	Director	November 16, 2018

GEOSPACE TECHNOLOGIES CORPORATION AND SUBSIDIARIES
INDEX TO FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Geospace Technologies Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Geospace Technologies Corporation and its subsidiaries (the Company) as of September 30, 2018, and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for the year then ended, and the related notes to the consolidated financial statements. In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of September 30, 2018, and the consolidated results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of September 30, 2018, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013, and our report dated November 16, 2018 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

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

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

/s/ RSM US LLP

We have served as the Company's auditor since 2018.

Houston, Texas
November 16, 2018

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Geospace Technologies Corporation

Opinion on the Internal Control Over Financial Reporting

We have audited Geospace Technologies Corporation and its subsidiaries' (the Company) internal control over financial reporting as of September 30, 2018, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2018, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheet as of September 30, 2018, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for the year then ended of the Company and our report dated November 16, 2018 expressed an unqualified opinion.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ RSM US LLP

Houston, Texas
November 16, 2018

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Geospace Technologies Corporation

Our audit of the consolidated financial statements and internal control over financial reporting referred to in our separate reports dated November 16, 2018, (included elsewhere in this Annual Report on Form 10-K) also included the financial statement schedule of Geospace Technologies Corporation and its subsidiaries, listed in Item 15(a) of this Form 10-K. This schedule is the responsibility of Geospace Technologies Corporation's management. Our responsibility is to express an opinion based on our audit of the consolidated financial statements.

In our opinion, the financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ RSM US LLP

Houston, Texas
November 16, 2018

Report of Independent Registered Public Accounting Firm

To the Board of Directors and
Stockholders of Geospace Technologies Corporation
Houston, Texas

We have audited the accompanying consolidated balance sheet of Geospace Technologies Corporation (the "Company") as of September 30, 2017, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the two fiscal years in the period ended September 30, 2017. In connection with our audits of the consolidated financial statements, we have also audited the financial statement schedule as of and for each of the two fiscal years in the period ended September 30, 2017 listed in the accompanying index. These consolidated financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements and schedule 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 consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting policies used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements and schedule. 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 Geospace Technologies Corporation as of September 30, 2017, and the result of its operations and its cash flows for each of the two fiscal years in the period ended September 30, 2017, in conformity with accounting principles generally accepted in the United States of America.

Also, in our opinion, the related financial statement schedule as of and for each of the two fiscal years in the period ended September 30, 2017, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ BDO USA, LLP

Houston, Texas
December 1, 2017

Geospace Technologies Corporation and Subsidiaries
Consolidated Balance Sheets
(In thousands, except share amounts)

	AS OF SEPTEMBER 30, 2018	AS OF SEPTEMBER 30, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 11,934	$ 15,092
Short-term investments	25,471	36,137
Trade accounts receivable, net of allowance of $1,453 and $1,395	14,323	9,435
Financing receivables	4,258	3,055
Income tax receivable	—	273
Inventories	18,812	20,752
Prepaid expenses and other current assets	1,856	1,623
Total current assets	76,654	86,367
Rental equipment, net	39,545	16,462
Property, plant and equipment, net	33,624	37,399
Non-current inventories	31,655	55,935
Goodwill	4,343	—
Other intangible assets	8,006	—
Deferred income tax assets, net	246	259
Non-current financing receivables, net of allowance of $1,849 and $1,020	4,740	8,195
Prepaid income taxes	54	450
Other assets	213	629
Total assets	$ 199,080	$ 205,696
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable trade	$ 4,106	$ 2,599
Accrued expenses and other current liabilities	6,826	6,338
Deferred revenue	3,752	1,568
Income tax payable	51	—
Total current liabilities	14,735	10,505
Contingent earn-out liability	7,713	—
Deferred income tax liabilities	45	37
Total liabilities	22,493	10,542
Commitments and contingencies (Note 20)		
Stockholders' equity:		
Preferred stock, 1,000,000 shares authorized, no shares issued and outstanding	—	—
Common stock, $.01 par value, 20,000,000 shares authorized, 13,600,541 and 13,438,316 shares issued and outstanding	136	134
Additional paid-in capital	86,116	83,733
Retained earnings	105,954	125,517
Accumulated other comprehensive loss	(15,619)	(14,230)
Total stockholders' equity	176,587	195,154
Total liabilities and stockholders' equity	$ 199,080	$ 205,696

The accompanying notes are an integral part of the consolidated financial statements.

Geospace Technologies Corporation and Subsidiaries
Consolidated Statements of Operations
(In thousands, except share and per share amounts)

	YEAR ENDED SEPTEMBER 30, 2018	2017	2016
Revenue:			
Products	$ 53,885	$ 60,055	$ 46,530
Rental equipment	21,863	13,666	15,530
Total revenue	75,748	73,721	62,060
Cost of revenue:			
Products	52,422	79,548	63,608
Rental equipment	12,354	14,856	17,815
Total cost of revenue	64,776	94,404	81,423
Gross profit (loss)	10,972	(20,683)	(19,363)
Operating expenses:			
Selling, general and administrative	19,874	20,238	21,533
Research and development	10,832	13,782	13,851
Bad debt expense (recovery)	1,009	(380)	763
Total operating expenses	31,715	33,640	36,147
Loss from operations	(20,743)	(54,323)	(55,510)
Other income:			
Interest expense	(336)	(39)	(26)
Interest income	1,083	653	376
Foreign exchange gains (losses)	324	(339)	(113)
Other, net	(120)	(60)	(60)
Total other income, net	951	215	177
Loss before income taxes	(19,792)	(54,108)	(55,333)
Income tax expense (benefit)	(580)	2,683	(9,363)
Net loss	$ (19,212)	$ (56,791)	$ (45,970)
Loss per common share:			
Basic	$ (1.45)	$ (4.32)	$ (3.52)
Diluted	$ (1.45)	$ (4.32)	$ (3.52)
Weighted average common shares outstanding:			
Basic	13,250,867	13,134,071	13,044,875
Diluted	13,250,867	13,134,071	13,044,875

The accompanying notes are an integral part of the consolidated financial statements.

Geospace Technologies Corporation and Subsidiaries
Consolidated Statements of Comprehensive Loss
(In thousands)

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Net loss	$ (19,212)	$ (56,791)	$ (45,970)
Other comprehensive income (loss), net of tax:			
Change in unrealized losses on available-for-sale securities	(24)	(43)	(12)
Foreign currency translation adjustments	(1,365)	1,754	(2,984)
Other comprehensive income (loss), net of tax	(1,389)	1,711	(2,996)
Total comprehensive loss	$ (20,601)	$ (55,080)	$ (48,966)

The accompanying notes are an integral part of the consolidated financial statements.

Geospace Technologies Corporation and Subsidiaries
Consolidated Statement of Stockholders' Equity
For the years ended September 30, 2018, 2017 and 2016
(In thousands, except share amounts)

	Common Stock		Additional	Retained	Accumulated Other	
	Shares	Amount	Paid-In Capital	Earnings	Comprehensive Loss	Total
Balance at October 1, 2015	13,147,916	$ 131	$ 74,160	$ 228,278	$ (12,945)	$ 289,624
Net loss	—	—	—	(45,970)	—	(45,970)
Other comprehensive loss	—	—	—	—	(2,996)	(2,996)
Excess tax expense from stock-based compensation	—	—	(1,411)	—	—	(1,411)
Issuance of restricted stock	182,400	2	(2)	—	—	—
Forfeiture of restricted stock	(2,250)	—	—	—	—	—
Stock-based compensation	—	—	5,220	—	—	5,220
Balance at September 30, 2016	13,328,066	133	77,967	182,308	(15,941)	244,467
Net loss	—	—	—	(56,791)	—	(56,791)
Other comprehensive loss	—	—	—	—	1,711	1,711
Issuance of restricted stock	109,500	1	(1)	—	—	—
Forfeiture of restricted stock	(3,250)	—	—	—	—	—
Issuance of common stock pursuant to exercise of options, net of tax	4,000	—	35	—	—	35
Stock-based compensation	—	—	5,732	—	—	5,732
Balance at September 30, 2017	13,438,316	134	83,733	125,517	(14,230)	195,154
Cumulative adjustment for intercompany profits on intra-entity asset transfers	—	—	—	(351)	—	(351)
Balance at October 1, 2017	13,438,316	134	83,733	125,166	(14,230)	194,803
Net loss	—	—	—	(19,212)	—	(19,212)
Other comprehensive income	—	—	—	—	(1,389)	(1,389)
Issuance of restricted stock	176,450	2	(2)	—	—	—
Forfeiture of restricted stock	(21,925)	—	—	—	—	—
Issuance of common stock pursuant to exercise of options, net of tax	7,700	—	67	—	—	67
Stock-based compensation	—	—	2,318	—	—	2,318
Balance at September 30, 2018	13,600,541	$ 136	$ 86,116	$ 105,954	$ (15,619)	$ 176,587

The accompanying notes are an integral part of the consolidated financial statements.

Geospace Technologies Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(In thousands)

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Cash flows from operating activities:			
Net loss	$ (19,212)	$ (56,791)	$ (45,970)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Deferred income tax expense (benefit)	(18)	(25)	4,209
Rental equipment depreciation	10,178	12,530	14,523
Property, plant and equipment depreciation	4,040	5,236	5,391
Amortization	194	—	—
Impairment of long-lived assets	573	5,331	1,814
Accretion of discounts on short-term investments	27	60	110
Stock-based compensation expense	2,318	5,732	5,220
Bad debt expense (recovery)	1,009	(380)	763
Inventory obsolescence expense	4,353	21,472	11,212
Gross profit from sale of used rental equipment	(6,809)	(9,054)	(404)
Gain (loss) on disposal of property, plant and equipment	(27)	—	8
Realized loss on short-term investments	11	3	5
Excess tax expense from stock-based compensation	—	—	(1,411)
Effects of changes in operating assets and liabilities:			
Trade accounts and financing receivables	(5,090)	7,743	(3,428)
Income tax receivable	270	13,041	4,078
Inventories	(7,824)	2,962	5,193
Prepaid expenses and other current assets	93	680	(523)
Prepaid income taxes	55	2,171	1,475
Accounts payable trade	1,333	477	(1,942)
Accrued expenses and other	1,011	(1,269)	(2,149)
Deferred revenue	3,063	295	11
Income taxes payable	51	(123)	120
Net cash provided by (used in) operating activities	(10,401)	10,091	(1,695)
Cash flows from investing activities:			
Purchase of property, plant and equipment	(1,721)	(1,177)	(1,867)
Investment in rental equipment	(6,513)	(455)	(502)
Proceeds from the sale of property, plant and equipment	202	—	—
Proceeds from the sale of used rental equipment	9,918	4,884	1,584
Purchases of short-term investments	(17,922)	(19,242)	(25,791)
Proceeds from the sale of short-term investments	28,463	10,532	16,368
Business acquisition, net of acquired cash	(4,352)	—	—
Payments for damages related to insurance claim	(2,353)	—	—
Proceeds from insurance claim	1,749	—	—
Increase in insurance claim receivable	306	—	—
Net cash provided by (used in) investing activities	7,777	(5,458)	(10,208)
Cash flows from financing activities:			
Proceeds from exercise of stock options and other	63	50	—
Net cash provided by financing activities	63	50	—
Effect of exchange rate changes on cash	(597)	147	(149)
Increase (decrease) in cash and cash equivalents	(3,158)	4,830	(12,052)
Cash and cash equivalents, beginning of fiscal year	15,092	10,262	22,314
Cash and cash equivalents, end of fiscal year	$ 11,934	$ 15,092	$ 10,262

The accompanying notes are an integral part of the consolidated financial statements.

Geospace Technologies Corporation and Subsidiaries
Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies:

The Company

Geospace Technologies Corporation ("Geospace") designs and manufactures instruments and equipment used by the oil and gas industry to acquire seismic data in order to locate, characterize and monitor hydrocarbon producing reservoirs. Geospace also designs and manufactures Adjacent Markets products, including industrial products and imaging equipment, and Emerging Market products consisting of border and perimeter security products. Geospace and its subsidiaries are referred to collectively as the "Company".

Basis of Presentation

The accompanying financial statements present the consolidated financial position, results of operations and cash flows of the Company in accordance with accounting principles generally accepted in the United States of America. All intercompany balances and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the use of estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company considers many factors in selecting appropriate operational and financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these financial statements. The Company continually evaluates its estimates, including those related to bad debt reserves, inventory obsolescence reserves, self-insurance reserves, product warranty reserves, impairment of long-lived assets and deferred income tax assets. The Company bases its estimates on historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different conditions or assumptions.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an original or remaining maturity at the time of purchase of three months or less to be cash equivalents. At September 30, 2018 cash and cash equivalents included $7.3 million held by the Company's foreign subsidiaries and branch offices. If the Company were to repatriate the cash held by its foreign subsidiaries, it would be required to accrue and pay taxes on any amount repatriated under rated enacted by The Tax Cuts and Jobs Act ("2017 Tax Act').

Short-term Investments

The Company classifies its short-term investments consisting of corporate bonds, government bonds and other such similar investments as available-for-sale securities. Available-for-sale securities are carried at fair market value with net unrealized holding gains and losses reported each period as a component of accumulated other comprehensive loss in stockholders' equity. See Note 2 to these consolidated financial statements for additional information.

Concentrations of Credit Risk

The Company maintains its cash in bank deposit accounts that, at times, exceed federally insured limits. Management of the Company believes that the financial strength of the financial institutions holding such deposits minimizes the credit risk of such deposits.

The Company sells products to customers throughout the United States and various foreign countries. The Company's normal credit terms for trade receivables are 30 days. In certain situations, credit terms may be extended to 60 days or longer. The Company performs ongoing credit evaluations of its customers and generally does not require collateral for its trade receivables. Additionally, the Company provides long-term financing in the form of promissory notes and sales-type leases when competitive conditions require such financing. In such cases, the Company may require collateral. Allowances are recognized for potential credit losses. One customer comprised 10.4% of the Company's revenue during fiscal year 2018. At September 30, 2018, the Company had a combined trade account and financing receivable due from this customer of $9.0 million. One customer comprised 17.8% of the Company's revenue during fiscal year 2017. At September 30, 2017, the Company had a financing receivable from this customer of $8.1 million. One customer comprised 18.5% of the Company's revenues during fiscal year 2016. At September 30, 2016, the Company had an account receivable from this customer of $9.1 million.

Inventories

The Company records a write-down of its inventories when the cost basis of any manufactured product, including any estimated future costs to complete the manufacturing process, exceeds its net realizable value. Inventories are stated at the lower of cost or net realizable value. Cost is determined on the first-in, first-out method, except that certain of the Company's foreign subsidiaries use an average cost method to value their inventories.

The Company periodically reviews the composition of its inventories to determine if market demand, product modifications, technology changes, excessive quantities on-hand and other factors hinder our ability to recover its investment in such inventories. The Company's assessment is based upon historical product demand, estimated future product demand and various other judgments and estimates. Inventory obsolescence reserves are recorded when such assessments reveal that portions or components of the Company's inventory investment will not be realized in its operating activities.

The Company reviews it inventories for classification purposes. The value of inventories not expected to be realized in cash, sold or consumed during its next operating cycle are classified as noncurrent assets.

Property, Plant and Equipment and Rental Equipment

Property, plant and equipment and rental equipment are stated at cost. Depreciation expense is calculated using the straight-line method over the following estimated useful lives:

	Years
Rental equipment	2-5
Property, plant and equipment:	
Machinery and equipment	3-15
Buildings and building improvements	10-50
Other	5-10

Expenditures for renewals and betterments are capitalized. Repairs and maintenance expenditures are charged to expense as incurred. The cost and accumulated depreciation of assets sold or otherwise disposed of are removed from the accounts and any gain or loss thereon is reflected in the statements of operations.

Impairment of Long-lived Assets

The Company's long-lived assets are reviewed for impairment whenever an event or change in circumstances indicates the carrying amount of an asset or group of assets may not be recoverable. The impairment review, if necessary, includes a comparison of expected future cash flows (undiscounted and without interest charges) to be generated by an asset group with the associated carrying value of the related assets. If the carrying value of the asset group exceeds the expected future cash flows, an impairment loss is recognized to the extent that the carrying value of the asset group exceeds its fair value. Impairment charges are included as a component of cost of revenue in the Company's consolidated statements of operations.

Goodwill

For the fiscal year ended September 30, 2018, the Company followed the simplified procedures for analyzing goodwill impairment. The guidance on the testing of goodwill for impairment provides the option to first assess qualitative factors to determine if the annual two-step test of goodwill for impairment must be performed. If, based on the qualitative assessment of events or circumstances, an entity determines it is more likely than not that the goodwill fair value is more than its carrying amount then it is not necessary to perform the two-step impairment test. However, if an entity concludes otherwise, then the two-step impairment test must be performed to identify potential impairment and to measure the amount of goodwill impairment, if any. At September 30, 2018, the Company performed step-one of the two-step analysis and determined the fair value of its goodwill was more than its carrying amount.

Other Intangible Assets

Intangible assets are carried at cost, net of accumulated amortization. The estimated useful life of the Company's other intangible assets are evaluated each reporting period to determine whether events or circumstances warrant a revision to the remaining amortization period. If the estimate of an intangible asset's remaining useful life is changed, the amortization period should be changed prospectively. Amortization expense is calculated using the straight-line method over the following estimated useful lives:

	Years
Developed technology	18
Trade names	5
Customer relationships	4
Non-compete agreements	4

Revenue Recognition – Products and Services

The Company primarily derives revenue from the sale of its manufactured products, including revenue derived from the sale of its manufactured rental equipment. In addition, the Company generates revenue from the short-term rental under operating leases of its manufactured products. The Company recognizes revenue from product sales, including the sale of used rental equipment, when all of the following have occurred: (i) title passes to the customer, (ii) the customer assumes the risks and rewards of ownership, (iii) the product sales price has been determined, (iv) collectability of the sales price is reasonably assured, and (v) product delivery occurs as directed by the customer. Although infrequent, in cases where collectability is not reasonably assured, the installment or cost recovery method is used. Except for certain of the Company's reservoir characterization products, the Company's products are generally sold without any customer acceptance provisions, and the Company's standard terms of sale do not allow customers to return products for credit. The Company recognizes rental revenue as earned over the rental period. Rentals of the Company's equipment generally range from daily rentals to rental periods of up to six months or longer. Revenue from engineering services is recognized as services are rendered over the duration of a project, or as billed on a per hour basis. Field service revenue is recognized when services are rendered and is generally priced on a per day rate.

Deferred Revenue

The Company records deferred revenue when customer funds are billed or received prior to the recognition of the associated revenue.

Contingent Earn-out Liability

The Company established an earn-out liability in connection with a business acquisition in the fourth quarter of fiscal year 2018. The Company engaged the services of a valuation firm to measure the fair value of the liability. The valuation technique used to measure the fair value of the liability was derived from models utilizing market observable inputs. The Company reviews and accesses the value of the liability on a quarterly basis. Adjustments to the liability, if any, will be included as a component of earnings in the consolidated statements of operations.

Research and Development Costs

The Company expenses research and development costs as incurred. Research and development costs include salaries, employee benefit costs, department supplies, direct project costs and other related costs.

Product Warranties

Most of the Company's products do not require installation assistance or sophisticated instructions. The Company offers a standard product warranty obligating it to repair or replace equipment with manufacturing defects. The Company maintains a reserve for future warranty costs based on historical experience or, in the absence of historical product experience, management's estimates. Reserves for future warranty costs are included within accrued expenses and other current liabilities on the consolidated balance sheets.

Changes in the product warranty reserve are reflected in the following table (in thousands):

Balance at October 1, 2015	$	2,326
Accruals for warranties issued during the year		595
Settlements made (in cash or in kind) during the year		(2,529)
Balance at September 30, 2016		392
Accruals for warranties issued during the year		770
Settlements made (in cash or in kind) during the year		(654)
Balance at September 30, 2017		508
Accruals for warranties issued during the year		1,074
Settlements made (in cash or in kind) during the year		(894)
Balance at September 30, 2018	$	688

Stock-Based Compensation

The Company accounts for stock-based compensation, including grants of restricted awards and unqualified stock options in accordance with Accounting Standards Codification Topic 718, which requires that all share-based payments (to the extent that they are compensatory) be recognized as an expense in the Company's consolidated statements of operations based on their fair values on the award date and the estimated number of shares it ultimately expects to vest.

The Company recognizes stock-based compensation expense on a straight-line basis over the requisite service period of the award. The Company's stock-based compensation plan and awards are more fully described in Note 15 to these consolidated financial statements.

Foreign Currency Gains and Losses

The assets and liabilities of the Company's foreign subsidiaries that have a foreign currency as their functional currency have been translated into U.S. dollars using the exchange rates in effect at the balance sheet date. Results of operations have been translated using the average exchange rates during the year. Resulting translation adjustments have been recorded as a component of accumulated other comprehensive loss in stockholders' equity. Foreign currency transaction gains and losses are included in the statements of operations as they occur. Transaction gains and losses on intra-entity foreign currency transactions and balances including advances and demand notes payable, on which settlement is not planned or anticipated in the foreseeable future, are recorded in "accumulated other comprehensive loss" on our consolidated balance sheets.

Shipping and Handling Costs

Amounts billed to a customer in a sales transaction related to reimbursable shipping and handling costs are included in revenue and the associated costs incurred by the Company for reimbursable shipping and handling expenses are reported in cost of sales. The Company had shipping and handling expenses of $0.5 million, $0.3 million and $0.4 million for each of the fiscal years ended September 30, 2018, 2017 and 2016, respectively.

Fair Value

Fair value is the price that would be received to sell an asset or the amount paid to transfer a liability in an orderly transaction between market participants (an exit price) at the measurement date. U.S. generally accepted accounting principles ("GAAP") has established a fair value hierarchy which prioritizes the inputs to the valuation techniques used to measure fair value into three levels. These levels are determined based on the lowest level input that is significant to the fair value measurement. Level 1 represents unadjusted quoted prices in active markets for identical assets and liabilities. Level 2 represents quoted prices for similar assets and liabilities in active markets (other than those included in Level 1) which are observable, either directly or indirectly. Level 3 represents valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

Income Taxes

Income taxes are presented in accordance with the Accounting Standards Codification Topic 740 ("Topic 740") guidance for accounting for income taxes. The estimated future tax effects of temporary differences between the tax basis of assets and liabilities and amounts reported in the accompanying consolidated balance sheets, as well as operating loss and tax credit carrybacks and carryforwards are recorded. Deferred tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities (temporary differences) and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company periodically reviews the recoverability of tax assets recorded on the balance sheet and provides valuation allowances if it is more likely than not that such assets will not be realized.

The Company follows the guidance of Topic 740 to analyze all tax positions that are less than certain. Topic 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. In accordance with Topic 740, the Company recognizes in its financial statements the impact of a tax position if that position is "more likely than not" to be sustained on audit, based on the technical merits of the position. The Company's estimate of the potential outcome of any uncertain tax issue is subject to management's assessment of relevant risks, facts, and circumstances existing at that time.

The Company classifies interest and penalties associated with the payment of income taxes in the Other Income (Expense) section of its consolidated statements of operations.

Recently Adopted Accounting Pronouncements

In October 2016, the Financial Accounting Standards Board ("FASB") issued guidance which eliminates the exception of recognizing, at the time of transfer, current and deferred income taxes for intercompany profits on intra-entity asset transfers other than inventory. The Company adopted this guidance in its first quarter of its fiscal year ended September 30, 2018 using the modified retrospective approach. The adoption resulted in a cumulative-effect charge to opening retained earnings of $0.4 million. Under prior guidance, the Company maintained a non-current prepaid income tax asset on its consolidated balance sheets representing income taxes paid in the U.S. on profits realized from the sale of rental equipment to its foreign subsidiaries. As this rental equipment was depreciated, the prepaid tax was recognized as a current income tax expense in the Company's consolidated statement of operations. Under the new guidance, the Company is required to recognize a deferred tax asset related to the intercompany profits realized on the sale of non-inventory assets to its subsidiaries; however, profits realized from the intercompany sale of inventories will continue to be accounted for as a prepaid income tax asset in accordance with the prior guidance. Under the new guidance, the deferred tax asset resulting from the sale of non-inventory assets is recognized at the jurisdictional tax rate of the subsidiary which purchased the asset. Any differences between the subsidiary's jurisdictional tax rate and the seller's tax rate pertaining to the intercompany profit are charged to seller's current income tax expense at the time of the sale. With the recent reduction in the U.S. income tax rate to 21%, and assuming that a majority of the Company's future intercompany equipment sales will continue to be made to its Canadian subsidiary having a higher statutory tax rate, the new guidance is expected to have a favorable impact on the Company's provision for income taxes in future periods. Due to the fact the Company has a valuation allowance against most of its net deferred tax assets, the adoption of this guidance had no impact upon the Company's income tax expense for the fiscal year ended September 30, 2018.

In March 2016, the FASB issued guidance to simplify key components of employee share-based payment accounting. The new guidance simplifies several aspects of the accounting for share-based payment transactions, including: (a) income tax consequences; (b) classification of awards as either equity or liabilities; and (c) classification of excess tax benefits from share-based payments on the statement of cash flows. The Company adopted this guidance in the first quarter of its fiscal year ended September 30, 2018. No cumulative effect adjustment to retained earnings was needed upon adoption since the Company had no unrecorded excess tax benefits residing in its additional paid-in-capital account. Under the prior standard, the Company was required to track and record as a component of additional paid-in capital the tax impact of cumulative windfalls, net of any shortfalls, which resulted from excess tax benefits from share-based payments. As a result, the impact of net windfalls has not historically affected the Company's provision for income taxes or its effective income tax rate. Under the new guidance, the Company will no longer track windfalls or shortfalls resulting from share-based payments since all future windfalls and shortfalls will be recorded as a component of the Company's current provision for income taxes. Depending on the magnitude of future windfalls or shortfalls, this change could significantly affect the Company's provision for income taxes in a positive or negative direction. Since the Company had a valuation allowance against the value of its cumulative U.S. net operating losses, the adoption of this guidance had no impact upon the Company's income tax expense for the fiscal year ended September 30, 2018.

In July 2015, the FASB issued guidance requiring management to measure inventory at the lower of cost or net realizable value. Under the new guidance, net realizable value is defined as the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Since the Company is a manufacturer and the nature of its inventory is generally unique to its designs and applications thus preventing the gathering of relevant external market data, its existing practice for calculating net realizable value under the current standard is consistent with the practice prescribed by the new guidance. The Company adopted this standard in the first quarter of its fiscal year ended September 30, 2018. The adoption of this guidance had no impact upon the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements

In August 2018, the FASB issued guidance which requires certain existing disclosure requirements in Topic 820 to be modified or removed, and certain new disclosure requirements to be added to the Topic. In addition, the guidance allows entities to exercise more discretion when considering fair value measurement disclosures. The guidance will be effective for the Company beginning January 1, 2020 with early adoption permitted. The Company is in the process of evaluating the impact of this guidance on its consolidated financial statements.

In January 2017, the FASB issued guidance which simplifies the current two-step goodwill impairment test by eliminating Step 2 of the test. The guidance requires a one-step impairment test in which an entity compares the fair value of a reporting unit with its carrying amount and recognizes an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, if any. This guidance is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years, and should be applied on a prospective basis. Early adoption is permitted for the interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the impact of the adoption of this guidance on its consolidated financial statements.

In November 2016, the FASB issued guidance which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. This guidance will be adopted by the Company in its first quarter of fiscal year 2019 and should be applied on a retrospective transition basis. The Company has historically not held restricted cash balances and, therefore, does not expect the adoption of this guidance to have a material effect on its consolidated financial statements. However, upon adoption of this guidance, the Company will make any necessary changes to present restricted cash balances in accordance with the guidance.

In June 2016, the FASB issued guidance surrounding credit losses for financial instruments that replaces the incurred loss impairment methodology in GAAP. The new impairment model requires immediate recognition of estimated credit losses expected to occur for most financial assets and certain other financial instruments. For available-for-sale debt securities with unrealized losses, credit losses will be recognized as allowances rather than reductions in the amortized cost of the securities. The standard is effective for annual reporting periods beginning after December 15, 2019 and interim periods within those annual periods. Early adoption for a fiscal year beginning after December 15, 2018 is permitted. Entities will apply the standard's provisions as a cumulative-effect adjustment to retained earnings as of the beginning of the first effective reporting period. The Company expects to adopt this standard during the first quarter of its fiscal year ending September 30, 2021 and is currently evaluating the impact of this new guidance on its consolidated financial statements.

In February 2016, the FASB issued guidance requiring a lessee to recognize assets and liabilities for leases with lease terms of more than 12 months. Consistent with current GAAP, the recognition, measurement and presentation of expense and cash flows arising from a lease by a lessee primarily will depend on its classification of the lease as a finance or operating lease. However, unlike current GAAP, which requires only capital leases to be recognized on the balance sheet, the new guidance will also require operating leases of the lessee to be recognized on the balance sheet if the operating lease term is more than 12 months. The guidance also requires disclosures to help investors and other financial statement users to better understand the amount, timing and uncertainty of cash flows arising from leases. These disclosures include qualitative and quantitative requirements, providing additional information about the amounts recorded in the financial statements. The guidance is effective for fiscal years, and interim reporting periods therein, beginning after December 15, 2018 and is to be applied using the modified retrospective approach. The Company expects to adopt this standard in its first quarter of its fiscal year ending September 30, 2020. The Company currently is not a lessee under any lease agreements with a term longer than one year. The Company is routinely a lessor in its rental contracts with customers. The term of these rental contracts is generally short-term in nature, and the Company believes these rentals would be treated as operating leases under the new guidance; however, the Company has not completed a detailed review of its various lease and rental arrangements, and these conclusions are subject to change.

In May 2014, the FASB issued guidance requiring entities to recognize revenue from contracts with customers by applying a five-step model in accordance with the core principle to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, this guidance specifies the accounting for some costs to obtain or fulfill a contract with a customer and expands disclosure requirements for revenue recognition. In August 2015, the FASB issued guidance deferring the effective date of this guidance to annual periods beginning after December 15, 2017, including interim reporting periods therein. Entities have the option to adopt this guidance either retrospectively or through a modified retrospective transition method. This new standard will supersede existing revenue guidance and affect the Company's revenue recognition process and the presentations or disclosures of the Company's consolidated financial statements and footnotes. The Company recognizes revenue through three primary transactions types: (i) the immediate recognition of revenue through the routine delivery of products to its customers, (ii) the rental of equipment to its customers through short-term operating leases, and (iii) the recognition of revenue utilizing the percentage of completion method for the delivery of complex products requiring long manufacturing times and substantial engineering resources. The Company will adopt this standard in the first quarter of its fiscal year ending September 30, 2019 using the modified retrospective method. The Company's evaluation of the standard is complete and the Company has not identified any transaction that will have a material effect on revenues recorded in its consolidated financial statements.

2. Business Acquisition

On July 27, 2018, the Company acquired Quantum Technology Sciences, Inc., a Florida-based tactical security and surveillance systems solutions provider ("Quantum") through a merger of the Company's subsidiary with and into Quantum, with Quantum as the surviving corporation. The acquisition represents the Company's strategy to expand its product revenues, as well as its engineering and manufacturing competencies, to markets outside the oil and gas industry.

The acquisition purchase price for Quantum consisted of a cash down payment at closing of approximately $4.4 million and contingent earn-out payments of up to $23.5 million over a four-year period.

In connection with the acquisition the Company recorded goodwill and other intangible assets of $12.5 million and established an initial contingent earn-out liability of $7.7 million. Current assets and current liabilities of $0.2 million and $0.6 million were acquired in the transaction. The contingent earn-out payments, if any, which may be paid in the form of cash or Company stock, will be derived from certain eligible revenue that may be generated during the four-year earn-out period.

Acquisition related costs of $0.3 million incurred in connection with the transaction are included in selling, general and administrative expenses in the Company's consolidated financial statements.

3. Short-term Investments

During the fiscal years ended September 30, 2018, 2017 and 2016 the Company realized losses of $11,000, $3,000 and $5,000, respectively, from the sale of short-term investments. The realized losses are recorded in Other Income (Expense) on the consolidated statements of operations. The Company's short-term investments were composed of the following (in thousands):

	AS OF SEPTEMBER 30, 2018			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Short-term investments:				
Corporate bonds	$ 17,851	$ —	$ (60)	$ 17,791
Government bonds	7,702	—	(22)	7,680
Total	$ 25,553	$ —	$ (82)	$ 25,471

	AS OF SEPTEMBER 30, 2017			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Short-term investments:				
Corporate bonds	$ 22,832	$ —	$ (34)	$ 22,798
Government bonds	13,363	—	(24)	13,339
Total	$ 36,195	$ —	$ (58)	$ 36,137

The Company's short-term investments have contractual maturities ranging from November 2018 to May 2020.

4. Derivative Financial Instruments

At September 30, 2018 and 2017, the Company's Canadian subsidiary had CAN$20.4 million and CAN$26.1 million, respectively, of Canadian dollar denominated intercompany accounts payable owed to one of the Company's U.S subsidiaries. In order to mitigate its exposure to movements in foreign currency rates between the U.S. dollar and Canadian dollar, the Company routinely enters into foreign currency forward contracts to hedge a portion of its exposure to changes in the value of the Canadian dollar. On September 28, 2018, the Company entered into a CAN$30.0 million 90-day hedge contract with a United States Bank to reduce the impact on cash flows from movements in the Canadian dollar/U.S. dollar currency exchange rate, but has not been designated as a hedge for accounting purposes. On October 18, 2018, the Company reduced its hedge to CAN$20.0 million.

The following table summarizes the gross fair value of all derivative instruments, which are not designated as hedging instruments and their location in the consolidated balance sheets (in thousands):

Derivative Instrument	Location	September 30, 2018	September 30, 2017
Foreign Currency Forward Contracts	Accrued Expenses and Other Current Liabilities	$ 270	$ —
		$ 270	$ —

The following table summarizes the impact of the Company's derivatives on the consolidated statements of operations in thousands):

		FOR THE YEAR ENDED SEPTEMBER 30,		
Derivative Instrument	Location	2018	2017	2016
Foreign Currency Forward Contracts	Other Income (Expense)	$ 779	$ (106)	$ 50
		$ 779	$ (106)	$ 50

Amounts in the above table include realized and unrealized derivative gains and losses.

5. Fair Value of Financial Instruments

At September 30, 2018, the Company's financial instruments included cash and cash equivalents, short-term investments, a foreign currency forward contract, trade, notes and financing lease receivables and accounts payable. Due to the short-term maturities of cash and cash equivalents, trade and other receivables and accounts payable, the carrying amounts approximate fair value on the respective balance sheet dates. The fair value of the intangible assets acquired in the Quantum acquisition was determined using a discounted cash flow analysis. The valuation technique used to measure the fair value of the contingent earn-out liability was derived from models utilizing market observable inputs.

The Company measures short-term investments and derivatives at fair value on a recurring basis.

The following tables present the fair value of the Company's short-term investments, contingent earn-out liability and foreign currency forward contracts by valuation hierarchy and input (in thousands):

	AS OF SEPTEMBER 30, 2018			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable (Level 2)	Significant Unobservable (Level 3)	Totals
Short-term investments				
Corporate bonds	$ 17,791	$ —	$ —	$ 17,791
Government bonds	7,680	—	—	7,680
Contingent earn-out liability	—	—	(7,713)	(7,713)
Foreign currency forward contract	—	(270)	—	(270)
Total	$ 25,471	$ (270)	$ (7,713)	$ 17,488

	AS OF SEPTEMBER 30, 2017			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable (Level 2)	Significant Unobservable (Level 3)	Totals
Short-term investments				
Corporate bonds	$ 22,798	$ —	$ —	$ 22,798
Government bonds	13,339	—	—	13,339
Total	$ 36,137	$ —	$ —	$ 36,137

Assets and liabilities measured on a nonrecurring basis

The measurements utilized to determine the implied fair value of the Company's long-lived assets and contingent earn-out liability as of September 30, 2018 represented significant unobservable inputs (Level 3).

6. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) consisted of the following (in thousands):

	Unrealized Gains (Losses) on Available-for-Sale Securities	Foreign Currency Translation Adjustments	Total
Balance at October 1, 2015	$ (3)	$ (12,942)	$ (12,945)
Other comprehensive loss	(12)	(2,984)	(2,996)
Balance at September 30, 2016	(15)	(15,926)	(15,941)
Other comprehensive income (loss)	(43)	1,754	1,711
Balance at September 30, 2017	(58)	(14,172)	(14,230)
Other comprehensive loss	(24)	(1,365)	(1,389)
Balance at September 30, 2018	$ (82)	$ (15,537)	$ (15,619)

7. Accounts and Financing Receivables

Trade accounts receivable consisted of the following (in thousands):

	AS OF SEPTEMBER 30,	
	2018	2017
Trade accounts receivable	$ 15,776	$ 10,830
Allowance for doubtful accounts	(1,453)	(1,395)
	$ 14,323	$ 9,435

The allowance for doubtful accounts represents the Company's best estimate of probable credit losses. The Company determines the allowance based upon historical experience and a review of its balances. Accounts receivable balances are charged off against the allowance whenever it is probable that the receivable will not be recoverable.

Financing receivables are reflected in the following table (in thousands):

	AS OF SEPTEMBER 30, 2018	AS OF SEPTEMBER 30, 2017
Promissory notes	$ 5,646	$ 4,306
Sales-type lease	5,533	8,581
Total financing receivables	11,179	12,887
Unearned income:		
Promissory notes	(95)	(90)
Sales-type lease	(237)	(527)
Total unearned income	(332)	(617)
Total financing receivables, net of unearned income	10,847	12,270
Allowance for doubtful notes	(1,849)	(1,020)
Less current portion	(4,258)	(3,055)
Non-current financing receivables	$ 4,740	$ 8,195

Promissory notes receivable are generally collateralized by the products sold, and bear interest at rates ranging up to 5% per year. The promissory notes receivable mature at various times through May 2021. The Company has, on occasion, extended or renewed notes receivable as they mature, but there is no obligation to do so.

The Company entered into a sales-type lease in September 2017 which resulted from the sale of rental equipment. The sales-type lease has a term of three years. Future minimum lease payments required under the lease at September 30, 2018 were $5.8 million, including $0.2 million of unearned income. The Company expects to receive approximately $2.9 million of future minimum lease payments in each of fiscal years 2019 and 2020. The ownership of the equipment will transfer to the lessee at the end of the lease term.

8. Inventories

Inventories consisted of the following (in thousands):

	AS OF SEPTEMBER 30, 2018	AS OF SEPTEMBER 30, 2017
Finished goods	$ 18,802	$ 33,690
Work in process	7,926	2,512
Raw material	54,290	70,099
Obsolescence reserve	(30,551)	(29,614)
	50,467	76,687
Less current portion	18,812	20,752
Non-current portion	$ 31,655	$ 55,935

Inventory obsolescence expense totaled approximately $4.4 million, $21.5 million and $11.2 million during fiscal years 2018, 2017 and 2016, respectively. Raw materials include semi-finished goods and component parts which totaled approximately $29.0 million and $43.2 million at September 30, 2018 and 2017, respectively.

9. Rental Equipment

Rental equipment consisted of the following (in thousands):

	AS OF SEPTEMBER 30, 2018	AS OF SEPTEMBER 30, 2017
Rental equipment, primarily wireless recording equipment	$ 76,245	$ 55,734
Accumulated depreciation and impairment	(36,700)	(39,272)
	$ 39,545	$ 16,462

Rental equipment depreciation expense was $10.2 million, $12.5 million and $14.5 million in fiscal years 2018, 2017 and 2016, respectively. Impairment expense of $1.8 million on rental equipment was incurred in fiscal year 2016.

10. Property, Plant and Equipment

Property, plant and equipment consisted of the following (in thousands):

	AS OF SEPTEMBER 30, 2018	AS OF SEPTEMBER 30, 2017
Land and land improvements	$ 8,552	$ 8,572
Building and building improvements	31,070	31,034
Machinery and equipment	52,523	53,185
Furniture and fixtures	1,362	1,352
Transportation equipment	31	31
Tools and molds	2,256	2,181
Construction in progress	503	1,135
	96,297	97,490
Accumulated depreciation	(62,673)	(60,091)
	$ 33,624	$ 37,399

Property, plant and equipment depreciation expense was $4.0 million, $5.2 million and $5.4 million in fiscal years 2018 and 2017, respectively. Impairment expense of $5.3 million was recorded on certain equipment in fiscal year 2017. The impairment expense is included as a component of cost of revenue in the consolidated statement of operations.

11. Goodwill and Other Intangible Assets

In connection with the acquisition of Quantum in July 2018, the Company recorded goodwill of $4.3 million and other intangible assets of $8.2 million. Intangible assets consisted of the following (in thousands):

	Weighted-Average Remaining Useful Lives (in years)	AS OF SEPTEMBER 30, 2018
Goodwill		$ 4,343
Other intangible assets:		
Developed technology	17.8	4,200
Customer relationships	4.8	2,500
Trade names	3.8	1,400
Non-compete agreements	3.8	100
Total other intangible assets	11.3	8,200
Accumulated amortization		(194)
		$ 8,006

Other intangible assets amortization expense was $0.2 million in fiscal year 2018. The aggregate amortization expense on other intangible assets for the succeeding five fiscal years ending September 2023 is estimated to be $1.2 million, $1.2 million, $1.2 million, $1.1 million and $0.5 million, respectively. The Company had no other intangible assets in fiscal years 2017 and 2016.

12. Long-Term Debt

The Company had no long-term debt outstanding at September 30, 2018 and 2017.

On March 2, 2011, the Company entered into a credit agreement with Frost Bank (the "Original Credit Agreement"). The Original Credit Agreement has been amended periodically since 2011 (as so amended, the "Credit Agreement"). Under the Credit Agreement, which expires on April 30, 2019, the Company can borrow up to $30.0 million with amounts available for borrowing determined by a borrowing base. The borrowing base is determined based upon certain of the Company's assets which include (i) 80% of certain accounts receivable plus (ii) 50% of certain notes receivable (such result not to exceed $10 million) plus (iii) 25% of certain inventories (such result not to exceed $20 million) and requires the Company to maintain unencumbered liquid assets of $10 million. Subject to the borrowing base calculation, as of September 30, 2018, the amount available for borrowing was $21.5 million after consideration of $0.3 million of outstanding letters of credit. The Company's domestic subsidiaries have guaranteed the obligations of the Company under the Credit Agreement and such subsidiaries have secured their obligations under such guarantees by the pledge of substantially all of the assets of such subsidiaries, except real property assets. The Company is required to make monthly interest payments on borrowed funds. The Credit Agreement limits the incurrence of additional indebtedness and contains other covenants customary in agreements of this type. The interest rate for borrowings under the Credit Agreement is based on the Wall Street Journal prime rate, which was 5.25% at September 30, 2018. At September 30, 2018, the Company was in compliance with all covenants under the Credit Agreement. On November 8, 2018, the Company further amended the Credit Agreement to extend its expiration date to April 30, 2020.

13. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	AS OF SEPTEMBER 30,	
	2018	2017
Product warranty	$ 688	$ 508
Compensated absences	1,329	1,287
Legal and professional fees	434	194
Payroll	960	682
Property and sales taxes	1,977	2,383
Medical claims	450	550
Other	988	734
	$ 6,826	$ 6,338

The Company is self-insured for certain losses related to employee medical claims. The Company has purchased stop-loss coverage for individual claims in excess of $175,000 per claimant per year in order to limit its exposure to any significant levels of employee medical claims. Self-insured losses are accrued based on the Company's historical experience and on estimates of aggregate liability for uninsured claims incurred using certain actuarial assumptions followed in the insurance industry.

14. Employee Benefits

The Company's U.S. employees are participants in the Geospace Technologies Corporation's Employee's 401(k) Retirement Plan (the "Plan"), which covers substantially all eligible employees in the United States. The Plan is a qualified salary reduction plan in which all eligible participants may elect to have a percentage of their compensation contributed to the Plan, subject to certain guidelines issued by the Internal Revenue Service. The Company's share of discretionary matching contributions was approximately $0.8 million in fiscal years 2018, 2017 and 2016.

The Company's stock incentive plans in which key employees may participate are discussed in Note 15 to these consolidated financial statements.

15. Stockholders' Equity

In September 1997, the board of directors and stockholders approved the 1997 Key Employee Stock Option Plan (as amended the "1997 Plan") and, following amendments thereto, there has been reserved an aggregate of 2,250,000 shares of common stock for issuance thereunder. The 1997 Plan expired in November 2017.

In February 2014, the board of directors and stockholders approved the 2014 Long Term Incentive Plan (the "2014 Plan"), which replaced the 1997 Plan. Under the 2014 Plan, an aggregate of 1,500,000 shares of common stock may be issued. The Company is authorized to issue nonqualified and incentive stock options to purchase common stock and restricted stock awards of common stock to key employees, directors and consultants under the 2014 Plan. Options have a term not to exceed ten years, with the exception of incentive stock options granted to employees owning ten percent or more of the outstanding shares of common stock, which have a term not to exceed five years. The exercise price of any option may not be less than the fair market value of the common stock on the date of grant. In the case of incentive stock options granted to an employee owning ten percent or more of the outstanding shares of common stock, the exercise price of such option may not be less than 110% of the fair market value of the common stock on the date of grant. Under the 2014 Plan, the Company may issue shares of restricted stock to employees for no payment by the employee or for a payment below the fair market value on the date of grant. The restricted stock is subject to certain restrictions described in the 2014 Plan.

At September 30, 2018, an aggregate of 691,388 shares of common stock were available for issuance under the 2014 Plan. No further awards of stock options may be made under the 1997 Plan.

The following table summarizes the combined activity under the equity incentive plans for the indicated periods:

	Number of Nonqualified Options Outstanding	Weighted Average Exercise Price per Share	Number of Restricted Stock Awards	Weighted Average Grant-date Fair Value per Share
Outstanding at October 1, 2015	89,700	$ 17.27	142,500	$ 93.80
Granted	69,300	14.87	182,400	14.84
Exercised	—	—	—	—
Forfeited	—	—	(2,250)	77.33
Vested	—	—	(49,000)	90.73
Outstanding at September 30, 2016	159,000	16.23	273,650	39.98
Granted	51,300	21.42	109,500	21.12
Exercised	(4,000)	8.78	—	—
Forfeited	(4,500)	26.48	(3,250)	28.73
Vested	—	—	(91,100)	22.02
Outstanding at September 30, 2017	201,800	17.47	288,800	28.92
Granted	—	—	176,450	15.13
Exercised	(7,700)	8.78	—	—
Forfeited	(4,000)	17.63	(21,925)	18.75
Vested	—	—	(116,100)	45.19
Outstanding at September 30, 2018	190,100	$ 17.81	327,225	$ 16.42

During fiscal year 2018, the Company issued 176,450 shares of restricted stock under the 2014 Plan, as amended. The weighted average grant date fair value of the restricted stock was $15.13 per share. The grant date fair value of these awards was $2.7 million, which will be charged to expense over the next four years as the restrictions lapse. Compensation expense for restricted stock awards was determined based on the closing market price of the Company's stock on the date of grant applied to the total number of shares that are anticipated to fully vest. Recipients of restricted stock awards are entitled to vote such shares and are entitled to dividends, if paid.

All of the restricted stock outstanding at September 30, 2018 and 2017 were issued from the 2014 Plan. The 89,700 stock options outstanding at October 1, 2015 were issued under the 1997 Plan. All remaining stock options granted subsequent to October 1, 2015 were granted under the 2014 Plan. All stock options outstanding are nonqualified options.

The total intrinsic value of the Company's nonqualified stock options exercised during fiscal year 2018 and 2017 was $41,000 and $45,000, respectively. No nonqualified stock options were exercised during fiscal years 2016.

The following table summarizes information about stock options outstanding and exercisable at September 30, 2018:

	Options Outstanding				Options Exercisable			
Range of Exercise Prices	**Shares**	**Weighted Average Remaining Term (in years)**	**Weighted Average Exercise Price**	**Intrinsic Value**	**Shares**	**Weighted Average Remaining Term (in years)**	**Weighted Average Exercise Price**	**Intrinsic Value**
$8.78	24,500	0.2	$ 8.78	$120,540	24,500	0.2	$ 8.78	$120,540
$14.87	69,300	7.1	14.87	—	—	—	—	—
$21.42 to $26.48	96,300	5.1	22.32	—	—	2.5	23.30	—
	190,100	5.2	$ 17.81	$120,540	24,500	4.1	$ 17.18	$120,540

The Company recognized $2.3 million, $5.7 million and $5.2 million of stock-based compensation expense for the fiscal years ended September 30, 2018, 2017 and 2016, respectively. As of September 30, 2018, the Company had unrecognized compensation expense of $3.9 million relating to restricted stock awards. This unrecognized compensation expense is expected to be recognized over a weighted average period of 2.6 years. In addition, the Company had $0.1 million of unrecognized compensation expense related to nonqualified stock option awards which is expected to be recognized over a weighted average period of 0.8 years.

16. Income Taxes:

Components of income (loss) before income taxes were as follows (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	**2017**	**2016**
United States	$ (19,231)	$ (50,757)	$ (45,506)
Foreign	(561)	(3,351)	(9,827)
	$ (19,792)	$ (54,108)	$ (55,333)

The provision (benefit) for income taxes consisted of the following (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	**2017**	**2016**
Current			
Federal	$ (613)	$ 2,422	$ (13,726)
Foreign	51	286	148
State	—	—	6
	(562)	2,708	(13,572)
Deferred:			
Federal	—	—	2,881
Foreign	(18)	(25)	1,328
	(18)	(25)	4,209
	$ (580)	$ 2,683	$ (9,363)

Actual income tax expense (benefit) differs from income tax expense computed by applying the U.S. statutory federal tax rate of 24.5% (blended) for the fiscal year ended September 30, 2018 and 35% for the fiscal years ended September 30, 2017 and 2016 as follows (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Benefit for U.S federal income tax at statutory rate	$ (4,849)	$ (18,940)	$ (19,365)
Effect of foreign income taxes	(47)	124	630
Research and experimentation tax credit	(320)	(248)	(686)
State income taxes, net of federal income tax benefit	(23)	—	4
Nondeductible expenses	33	164	149
Resolution of prior years' tax matters	(657)	2	2,400
Change in valuation allowance	(4,237)	20,087	7,715
Impact on deferred taxes due to change in tax rate	8,116	(6)	(124)
Difference in U.S. tax rate from assumed rate	511	—	—
Foreign income taxes	11	506	—
Disallowance of stock compensation adjustments in excess of book	895	1,074	—
Other items	(13)	(80)	(86)
	$ (580)	$ 2,683	$ (9,363)
Effective tax rate	2.9%	(5.0)%	16.9%

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's net deferred income tax asset were as follows (in thousands):

	AS OF SEPTEMBER 30, 2018			AS OF SEPTEMBER 30, 2017		
	U.S.	Non U.S.	Total	U.S.	Non U.S.	Total
Deferred income tax assets:						
Allowance for doubtful accounts	$ 545	$ 8	$ 553	$ 777	$ 7	$ 784
Inventories	6,870	68	6,938	11,215	50	11,265
Loss and tax credit carry-forwards	17,056	4,151	21,207	11,803	4,490	16,293
Stock-based compensation	614	—	614	2,147	—	2,147
Accrued product warranty	136	8	144	174	2	176
Accrued compensated absences	259	—	259	419	—	419
Property and equipment	—	457	457	—	430	430
Prepaid income taxes	714	—	714	—	—	—
Other reserves	56	6	62	127	7	134
	26,250	4,698	30,948	26,662	4,986	31,648
Deferred income tax liabilities:						
Allowance for doubtful accounts	—	(6)	(6)	—	(9)	(9)
Intangible assets	(1,681)	—	(1,681)	—	—	—
Property, plant and equipment and other	(3,622)	(59)	(3,681)	(3,087)	(71)	(3,158)
Subtotal deferred income tax assets	20,947	4,633	25,580	23,575	4,906	28,481
Valuation allowance	(20,931)	(4,448)	(25,379)	(23,575)	(4,684)	(28,259)
Net deferred income tax assets	$ 16	$ 185	$ 201	$ —	$ 222	$ 222

Deferred income tax assets and liabilities are reported as follows in the accompanying consolidated balance sheets (in thousands):

	AS OF SEPTEMBER 30, 2018	AS OF SEPTEMBER 30, 2017
Deferred income tax assets, net	$ 246	$ 259
Deferred income tax liabilities, net	(45)	(37)
	$ 201	$ 222

The 2017 Tax Act was enacted in December 2017. The 2017 Tax Act, among other things, reduces the U.S. federal corporate tax rate from 35% to 21%, effective January 1, 2018, creates new taxes on certain foreign earnings and may require companies to pay a one-time transition tax on undistributed earnings of certain foreign subsidiaries that were previously tax deferred. The Company is not required to pay a one-time transition tax on earnings of our foreign subsidiaries since there were no accumulated earnings on a consolidated basis. As a result of the 2017 Tax Act, the Company revalued its U.S. our deferred tax assets based on a U.S. federal tax rate of 21%, which resulted in a reduction to our deferred tax assets of approximately $8.1 million. This amount was offset by a like reduction to the valuation allowance.

The financial reporting basis of investments in foreign subsidiaries exceed their tax basis. A deferred tax liability is not recorded for this temporary difference because the investment is deemed to be permanent. A reversal of the Company's plans to permanently invest in these foreign operations would cause the excess to become taxable. At September 30, 2018, the Company had $7.3 million of cash and cash equivalents held by its foreign subsidiaries. At September 30, 2018 and 2017, the temporary difference related to undistributed earnings for which no deferred taxes have been provided was approximately $12.9 million and $12.8 million, respectively.

Tax return filings which are subject to review by local tax authorities by major jurisdiction are as follows:

- United States—fiscal years ended September 30, 2015 through 2018
- State of Texas—fiscal years ended September 30, 2015 through 2018
- State of New York—fiscal years ended September 30, 2016 through 2018
- State of California – fiscal years ended September 30, 2015 through 2018
- State of Pennsylvania – fiscal years ended September 30, 2016 through 2018
- Russian Federation—calendar years 2016 through 2018
- Canada—fiscal years ended September 30, 2015 through 2018
- United Kingdom—fiscal years ended September 30, 2017 through 2018
- Colombia—calendar years 2016 through 2018

The following table is a reconciliation of the total amounts of unrecognized tax liabilities (in thousands):

Balance at October 1, 2015	$	75
Change in prior year tax positions		(70)
Current tax positions		—
Settlements with taxing authorities		—
Lapse of statute of limitations		(4)
Balance at September 30, 2016		1
Change in prior year tax positions		(1)
Current tax positions		—
Settlements with taxing authorities		—
Lapse of statute of limitations		—
Balance at September 30, 2017		—
Change in prior year tax positions		—
Current tax positions		—
Settlements with taxing authorities		—
Lapse of statute of limitations		—
Balance at September 30, 2018	$	—

As of September 30, 2018, the Company had net operating loss (“NOL”) carry-forwards of approximately $62.2 million in the United States, $14.0 million in Canada and $0.6 million in Russia which are available to offset future taxable income in those jurisdictions. The NOL carry-forwards for Canada and Russia begin to expire in 2033 and 2026, respectively. The NOL carry-forward for the United States which originated prior to the 2017 Tax Act of $49.4 million begins to expire in 2028. The Company’s NOLs originating after the 2017 Tax Act of $12.8 million do not expire.

During the year ended September 30, 2016, management concluded that it was more-likely-than-not that all of our U.S. and Canadian net deferred tax assets will not be realized in accordance with U.S. GAAP. At September 30, 2018 and September 30, 2017, we had a valuation allowance against our U.S. net deferred tax assets of $20.9 million and $23.6 million, respectively, and a valuation allowance against our Canadian net deferred tax assets of $4.4 million and $4.7 million, respectively.

17. Loss Per Common Share

The Company applies the two-class method in calculating per share data. Basic loss per share is computed by dividing net loss available to common stockholders by the weighted average number of common shares used in basic loss per share during the period. Diluted loss per share is determined on the assumption that outstanding dilutive stock options have been exercised and the aggregate proceeds as defined were used to reacquire common stock using the average price of such common stock for the period.

The following table summarizes the calculation of net loss and weighted average common shares and common equivalent shares outstanding for purposes of the computation of loss per share (in thousands, except share and per share amounts):

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Net loss	$ (19,212)	$ (56,791)	$ (45,970)
Less: Income allocable to unvested restricted stock	—	—	—
Loss available to common shareholders	(19,212)	(56,791)	(45,970)
Reallocation of participating earnings	—	—	—
Loss attributable to common shareholders for diluted earnings per share	$ (19,212)	$ (56,791)	$ (45,970)
Weighted average number of common share equivalents:			
Common shares used in basic loss per share	13,250,867	13,134,071	13,044,875
Common share equivalents outstanding related to stock options	—	—	—
Total weighted average common shares and common share equivalents used in diluted loss per share	13,250,867	13,134,071	13,044,875
Loss per shares:			
Basic	$ (1.45)	$ (4.32)	$ (3.52)
Diluted	$ (1.45)	$ (4.32)	$ (3.52)

For the calculation of diluted loss per share for fiscal years 2018, 2017 and 2016, stock options of 190,600, 201,800 and 159,000, respectively, were excluded in the calculation of weighted average shares outstanding as a result of their impact being antidilutive.

18. Related Party Transactions

The Company regularly transacts business with Creative Marketing Services, LP ("CMS"), a company owned by the spouse of Richard F. Miles, a director of the Company. CMS is a marketing company which has historically provided marketing, communications, and support services to the Company, including product photography, video shoots, brochure design, magazine advertising, website design, annual report production and various other marketing and advertising services. For fiscal years 2018, 2017 and 2016, the Company incurred expenses of $13,000, $7,000, and $39,000, respectively, to CMS for these services.

19. Exit and Disposal Activities

In December 2017, the Company initiated a program to reduce operating costs in light of expected and continuing low levels of product demand. The program was expected to produce approximately $6 million of annualized cash savings. The majority of the cost reductions were realized through a reduction of over 60 employees from the Company's Houston area workforce. In connection with the workforce reductions, the Company incurred $0.7 million of termination costs in its first quarter of fiscal year 2018. The termination costs were recorded to both cost of revenue and operating expenses in the consolidated statement of operations. No further termination costs are expected and there are no outstanding liabilities related to this program as of September 30, 2018.

20. Commitments and Contingencies

Contingent Earn-out Liability

The Company established an initial earn-out liability of $7.7 million in connection with its July 2018 acquisition of Quantum. The contingent earn-out payments, if any, which at the Company's option may be paid in the form of cash or Company stock, will be derived from certain eligible revenue that may be generated by Quantum during the four-year earn-out period. The Company reviews and accesses the value of the contingent earn-out liability on a quarterly basis. The maximum amount of contingent payments is $23.5 million over the four-year earn-out period.

Operating Leases

The Company leases office space and certain equipment for terms of one year or less. Rent expense was approximately $0.1 million, $0.1 million and $0.2 million during fiscal years 2018, 2017 and 2016, respectively.

Legal Proceedings

The Company is involved in various pending legal actions in the ordinary course of its business. Management is unable to predict the ultimate outcome of these actions, because of the inherent uncertainty of litigation. However, management believes that the most probable, ultimate resolution of current pending matters will not have a material adverse effect on the Company's consolidated financial position, results of operations or cash flows.

21. Supplemental Cash Flow Information

Supplemental cash flow information is as follows (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Cash paid for:			
Interest	$ 336	$ 39	$ 26
Non-cash investing and financing activities:			
Inventory transferred to rental equipment	29,248	1,677	3,982
Inventory transferred to property, plant and equipment	109	1,863	130
Financing receivables in connection with sale of used rental equipment	3,984	9,386	—

22. Segment and Geographic Information

Effective September 30, 2018, the Company began reporting and evaluating financial information for three operating business segments: Oil and Gas Markets, Adjacent Markets and Emerging Markets. The Oil and Gas Markets segment was previously referred to as our Seismic segment. This segment's products include wireless seismic data acquisition systems, reservoir characterization products and services, and traditional seismic exploration products such as geophones, hydrophones, leader wire, connectors, cables, marine streamer retrieval and steering devices and various other seismic products. Our Adjacent Markets segment was previously referred to as our Non-Seismic segment. This segment's products include imaging equipment, water meter products, offshore cables, as well as seismic sensors used for vibration monitoring and geotechnical applications such as mine safety applications and earthquake detection. The Emerging Markets segment was added in conjunction with the acquisition of Quantum, which designs and markets seismic products targeted at the border and perimeter security markets.

The following tables summarize the Company's segment information:

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Revenue:			
Oil and Gas Markets	$ 44,951	$ 47,109	$ 33,792
Adjacent Markets	29,932	26,027	27,708
Emerging Markets	286	—	—
Corporate	579	585	560
Total	75,748	73,721	62,060
Income (loss) from operations:			
Oil and Gas Markets	(14,070)	(46,902)	(47,690)
Adjacent Markets	5,345	4,153	4,093
Emerging Markets	(718)	—	—
Corporate	(11,300)	(11,574)	(11,913)
Total	(20,743)	(54,323)	(55,510)
Depreciation, amortization, impairment, inventory obsolescence and stock-based compensation expenses:			
Oil and Gas Markets	19,592	47,620	34,945
Adjacent Markets	654	785	746
Emerging Markets	207	—	—
Corporate	1,203	1,895	1,847
Total	21,656	50,300	37,538
Interest income:			
Oil and Gas Markets	614	311	161
Adjacent Markets	—	—	3
Emerging Markets	—	—	—
Corporate	469	342	212
Total	1,083	653	376
Interest expense:			
Oil and Gas Markets	2	—	—
Adjacent Markets	—	—	—
Emerging Markets	1	—	—
Corporate	333	39	26
Total	336	39	26

The Company's manufacturing operations for its business segments are combined. Therefore, the Company does not segregate and report separate balance sheet accounts for each of its segments and, therefore, no such segment balance sheet information is presented in the table above.

"Corporate" revenue consists of rental revenue earned from an operating lease of a surplus building located in Houston, Texas. "Corporate" loss from operations primarily consists of the Company's Houston headquarter general and administrative expenses.

The Company generates revenue from product sales, rentals and services from its subsidiaries located in the United States, Canada, Colombia, the Russian Federation and the United Kingdom. Revenue information for the Company is as follows (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
United States	$ 79,019	$ 60,696	$ 56,094
Canada	8,311	12,157	3,028
Colombia	300	558	556
Russian Federation	3,539	2,566	4,254
United Kingdom	3,095	2,892	2,120
Eliminations	(18,516)	(5,148)	(3,992)
	$ 75,748	$ 73,721	$ 62,060

A summary of revenue by geographic area is as follows (in thousands):

	YEAR ENDED SEPTEMBER 30,		
	2018	2017	2016
Asia (excluding Middle East)	$ 2,143	$ 7,924	$ 18,745
Canada	15,945	11,318	3,048
Europe	4,743	3,883	4,219
Middle East	76	609	1,749
United States	50,522	47,966	32,317
Other	2,319	2,021	1,982
	$ 75,748	$ 73,721	$ 62,060

Revenue is attributed to countries based on the ultimate destination of the product sold, if known. If the ultimate destination is not known, revenue is attributed to countries based on the geographic location of the initial shipment.

Long-lived assets, excluding deferred tax assets, were as follows (in thousands):

	AS OF SEPTEMBER 30,	
	2018	2017
United States	$ 106,079	$ 108,021
Canada	13,515	7,325
Colombia	1,002	1,747
Russian Federation	1,143	1,461
United Kingdom	428	502
China	13	14
	$ 122,180	$ 119,070

23. Selected Quarterly Information (Unaudited):

The following table represents summarized data for each of the quarters in fiscal years 2018 and 2017 (in thousands, except per share amounts):

	2018			
	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
Revenue	$ 20,587	$ 21,270	$ 19,247	$ 14,644
Gross profit (loss)	5,264	4,677	1,999	(968)
Loss from operations	(780)	(5,136)	(5,222)	(9,605)
Other income (expense), net	610	393	(183)	131
Net loss	(207)	(4,796)	(4,729)	(9,480)
Basic loss per share	$ (0.02)	$ (0.36)	$ (0.36)	$ (0.72)
Diluted loss per share	$ (0.02)	$ (0.36)	$ (0.36)	$ (0.72)

	2017			
	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
Revenue	$ 23,683	$ 14,195	$ 20,558	$ 15,285
Gross profit (loss)	(9,686)	(5,112)	(2,558)	(3,327)
Loss from operations	(18,178)	(13,774)	(11,060)	(11,311)
Other income (expense), net	231	46	(102)	40
Net loss	(19,207)	(14,376)	(11,503)	(11,705)
Basic loss per share	$ (1.46)	$ (1.09)	$ (0.88)	$ (0.89)
Diluted loss per share	$ (1.46)	$ (1.09)	$ (0.88)	$ (0.89)

24. Subsequent Event

On November 13, 2018, the Company announced it had acquired all of the intellectual property and related assets of the OptoSeis® fiber optic sensing technology business from PGS Americas, Inc. The OptoSeis® business operations will remain in Austin, Texas and operate as a division of the Company. The purchase price for the OptoSeis® technology consisted of a cash down payment at closing of $1.8 million plus contingent earn-out payments of up to $23.2 million over a five-and-a-half year earn-out period. The contingent cash payments will be derived from eligible revenues generated during the earn-out period from products and services utilizing the OptoSeis® fiber optic technology.

Schedule II

Geospace Technologies Corporation and Subsidiaries
Valuation and Qualifying Accounts
(In thousands)

	Balance at Beginning of Period	Charged to Costs and Expenses, net of Recoveries	Charged to Other Assets	(Deductions) and Additions	Balance at End of Period
Year ended September 30, 2018					
Allowance for doubtful accounts on accounts and financing receivables	$ 2,415	$ 1,009	$ —	$ (122)	$ 3,302
Year ended September 30, 2017					
Allowance for doubtful accounts on accounts and financing receivables	$ 2,949	$ (380)	$ —	$ (154)	$ 2,415
Year ended September 30, 2016					
Allowance for doubtful accounts on accounts and financing receivables	$ 2,516	$ 763	$ —	$ (330)	$ 2,949

	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Assets	(Deductions) and Additions	Balance at End of Period
Year ended September 30, 2018					
Inventory obsolescence reserve	$ 29,614	$ 4,353	$ —	$ (3,416)	$ 30,551
Year ended September 30, 2017					
Inventory obsolescence reserve	$ 9,674	$ 21,472	$ —	$ (1,532)	$ 29,614
Year ended September 30, 2016					
Inventory obsolescence reserve	$ 6,675	11,212	$ —	$ (8,213)	$ 9,674

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President &
Chief Executive Officer

Robbin B. Adams
Executive Vice President &
Chief Project Engineer

Thomas T. McEntire
Vice President &
Chief Financial Officer

Michael J. Sheen
Senior Vice President &
Chief Technical Officer

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Chairman of the Board

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Professor of Geophysics
Colorado School of Mines

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Retired Partner
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Walter R. Wheeler
President & CEO
Geospace Technologies

2018 Board of Directors
Left to right: Thomas Davis, Richard Miles, William Moody, Charles Still, Gary Owens, Rick Wheeler, Michael Sheen, Tina Langtry and Edgar Giesinger, Jr.

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