RAVEN INDUSTRIES INC

FORM 10-K
(Annual Report)

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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 January 31, 2017

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

For the transition period from to

Commission File Number: 001-07982

RAVEN INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

South Dakota	**46-0246171**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
205 E. 6th Street, P.O. Box 5107, Sioux Falls, SD	**57117- 5107**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number including area code (605) 336-2750

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

Title of each class:	**Name of each exchange on which registered**
Common Stock, $1 par value	The NASDAQ Stock 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 and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).	☑ Yes	☐ No
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter)is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.	☑	

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

Large accelerated filer	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
(Do not check if a smaller reporting company)			

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

The aggregate market value of the registrant's common stock held by non-affiliates at July 31, 2016 was approximately $742,719,932. The aggregate market value was computed by reference to the closing price as reported on the NASDAQ Global Select Market, $20.76, on July 29, 2016, which was as of the last business day of the registrant's most recently completed second fiscal quarter. The number of shares outstanding on March 22, 2017 was 36,076,259.

DOCUMENTS INCORPORATED BY REFERENCE

The definitive proxy statement relating to the registrant's Annual Meeting of Shareholders, to be held May 25, 2017, is incorporated by reference into Part III to the extent described therein.

PART I

ITEM 1. BUSINESS

Raven Industries, Inc. (the Company or Raven) was incorporated in February 1956 under the laws of the State of South Dakota and began operations later that same year. The Company is a diversified technology company providing a variety of products to customers within the industrial, agricultural, geomembrane (which includes energy), construction, and aerospace/defense markets. The Company markets its products around the world and has its principal operations in the United States of America. Raven began operations as a manufacturer of high-altitude research balloons before diversifying into product lines that extended from technologies and production methods of this original balloon business. The Company employs 941 people and is headquartered at 205 E. Sixth Street, Sioux Falls, SD 57104 - telephone (605) 336-2750. The Company's Internet address is http://www.ravenind.com and its common stock trades on the NASDAQ Global Select Market under the ticker symbol RAVN. The Company has adopted a Code of Conduct applicable to all officers, directors and employees, which is available on the website. Information on the Company's website is not part of this filing.

All reports (including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and current reports on Form 8-K) and proxy and information statements filed with the Securities and Exchange Commission (SEC) are available through a link from the Company's website to the SEC website. All such information is available as soon as reasonably practicable after it has been electronically filed. Filings can also be obtained free of charge by contacting the Company or the SEC. The SEC can be contacted through its website at http://www.sec.gov or through the SEC's Office of FOIA/PA Operations at 100 F Street N.E., Washington, DC 20549-2736, or by calling the SEC at 1-800-732-0330.

This Annual Report on Form 10-K (Form 10-K) contains forward-looking statements that are subject to risks and uncertainties. All statements other than statements of historical fact included in this Form 10-K are forward-looking statements. Forward-looking statements give our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance, and business. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected. Important factors that could cause actual results to differ materially from our expectations and other important information about forward-looking statements are disclosed under Item 1A, “Risk Factors” and Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations, Forward-Looking Statements” in this Form 10-K.

BUSINESS SEGMENTS

The Company has three unique operating units, or divisions, that are also its reportable segments: Applied Technology Division (Applied Technology), Engineered Films Division (Engineered Films), and Aerostar Division (Aerostar). Product lines have been generally grouped in these segments based on technology, manufacturing processes, and end-use application; however, a business segment may serve more than one of the product markets identified above. The Company measures the profitability performance of its segments primarily based on their operating income excluding administrative and general expenses. Other expense and income taxes are not allocated to individual operating segments, and assets not identifiable to an individual segment are included as corporate assets. Segment information is reported consistent with the Company's management reporting structure.

Business segment financial information is found on the following pages of this Form 10-K:

22 Results of Operations – Segment Analysis

73 Note 15 *Business Segments and Major Customer Information*

Applied Technology

Applied Technology designs, manufactures, sells, and services innovative precision agriculture products and information management tools that help growers reduce costs, more precisely control inputs, and improve farm yields. The Applied Technology product families include field computers, application controls, GPS-guidance and assisted-steering systems, automatic boom controls, injection systems, yield monitoring controls, and planter and seeder controls. Applied Technology's services include high-speed in-field Internet connectivity and cloud-based data management. The Company's investment in Site-Specific Technology Development Group, Inc. (SST), a software company, and the continued build-out of the Slingshot™ platform have also positioned Applied Technology as an information platform that improves grower decision-making and achieves business efficiencies for its agriculture retail partners.

Applied Technology sells its precision agriculture control products to both original equipment manufacturers (OEMs) and through aftermarket distribution partners in the United States and in most major agricultural areas around the world. The Company's competitive advantage in this segment is designing and selling easy to use, reliable, and innovative value-added products that are supported by an industry-leading service and support team.

Engineered Films

Engineered Films produces high-performance plastic films and sheeting for geomembrane (which includes energy), agricultural, construction, and industrial applications.

Engineered Films sells plastic sheeting both direct to end-customers and through independent third-party distributors. The majority of product sold into the construction and agriculture markets is through distributors, while sales into the geomembrane and industrial markets are more direct in nature. The Company extrudes a significant portion of the film converted for its commercial products and believes it is one of the largest sheeting converters in the United States in the markets it serves. Engineered Films' ability to both extrude and convert films allows it to provide a more customized solution to customers. A number of film manufacturers compete with the Company on both price and product availability. Engineered Films is the Company's most capital-intensive business segment, and historically has made sizable investments in new extrusion capacity and conversion equipment. This segment's capital expenditures were $2.8 million in fiscal 2017, $ 10.8 million in fiscal 2016, and $8.2 million in fiscal 2015.

Aerostar

Aerostar serves the aerospace/defense and situational awareness markets. Aerostar's primary products include high-altitude balloons, tethered aerostats, and radar processing systems. These products can be integrated with additional third-party sensors to provide research, communications, and situational awareness capabilities to governmental and commercial customers. Aerostar’s growth strategy emphasizes the design and manufacture of proprietary products in these markets. In previous years, Aerostar also provided contract manufacturing services. The Company largely exited this business and the planned reduction of contract manufacturing activities was completed in fiscal 2016.

Through Vista Research, Inc. (Vista) and a separate business venture that is majority-owned by the Company, Aerostar pursues product and support services contracts for agencies and instrumentalities of the U.S. government as well as sales of advanced radar systems and aerostats in international markets. In limited cases, such sales may be Direct Commercial Sales to foreign governments rather than Foreign Military Sales through the U.S. government.

Aerostar sells to government agencies as both a prime contractor and subcontractor, and to commercial users primarily as a sub-contractor. Certain projects Aerostar bids on can be larger-scale, with opportunities for $10 million projects. Further, Direct Commercial Sales to foreign governments often involve large contracts subject to frequent delays because of budget uncertainties, regional military conflicts, and protracted negotiation processes. The timing and size of contract wins create volatility in Aerostar’s results.

OUTLOOK

As we begin fiscal year 2018, the Company continues to face uncertainties in end-market demand, but we have created opportunities for growth with the investments we have made over the last few years. Momentum continued to build throughout fiscal year 2017 and continues today. Despite the macro challenges faced in certain end markets, management is relatively optimistic for the year ahead.

For Applied Technology, end-market demand continues to be subdued and management does not expect an improvement in such demand to occur during fiscal year 2018. With that said, the research and development efforts that were maintained during the market downturn have led to new product introductions which are seeing success. As a result, the division has been able to increase its market share position and overcome the down market to achieve growth both domestically and internationally. Management expects this to continue in fiscal year 2018.

For Engineered Films, after nearly two years of declining demand in the geomembrane market which culminated in a revenue decline of approximately 66% in fiscal year 2016, the division began to see conditions improve in the second half of fiscal year 2017. Although there remains uncertainty with respect to geomembrane end-market demand in the future, management expects growth in this market in fiscal year 2018. In addition, management expects sales into the industrial market to improve in fiscal 2018 as the result of success in selling the capacity of its new industrial production line that was put in service in first quarter fiscal 2017. Overall, sales growth in the division is expected in fiscal year 2018.

For Aerostar, the outlook is mixed, but financial performance is expected to improve. For stratospheric balloon related sales, the outlook is relatively strong. The division has been awarded a new stratospheric balloon contract with a new customer and sales to Google for Project Loon are expected to increase again in fiscal year 2018. At the same time, the division is susceptible to delays in deliveries of radar systems and aerostats. The timing of contract wins has a significant impact on the growth and profitability of the division. Overall, management's outlook for the division remains cautious, but we do expect financial performance to improve in fiscal 2018.

The Company remains committed to executing its strategic plan and expects to make continued progress towards its long-term goal to generate 10% annualized earnings growth while also generating strong relative returns on equity and assets.

MAJOR CUSTOMER INFORMATION

No customers accounted for 10% or more of consolidated sales in fiscal years 2017 and 2016 . Sales to Brawler Industrial Fabrics, a customer in the Engineered Films Division, accounted for 14% of consolidated sales in fiscal 2015 .

SEASONAL WORKING CAPITAL REQUIREMENTS

Some seasonal demand exists in both the Applied Technology and Engineered Films divisions, primarily due to their respective exposure to the agricultural market. Although net working capital (accounts receivable, net plus inventories less accounts payable) requirements tend to be the highest in the fiscal first quarter, given the overall diversification of the Company, the seasonal fluctuations in net working capital are not significant.

FINANCIAL INSTRUMENTS

The principal financial instruments that the Company maintains are cash, cash equivalents, short-term investments, accounts receivable, accounts payable, accrued liabilities, and acquisition-related contingent payments. The Company manages the interest rate, credit, and market risks associated with these accounts through periodic reviews of the carrying value of assets and liabilities and establishment of appropriate allowances in accordance with Company policies. The Company does not use off-balance sheet financing, except to enter into operating leases.

The Company does not enter into derivatives or other financial instruments for trading or speculative purposes. The Company uses derivative financial instruments to manage foreign currency balance sheet risk. The use of these financial instruments has had no material effect on consolidated results of operations, financial condition, or cash flows.

RAW MATERIALS

The Company obtains a wide variety of materials from numerous vendors. Principal materials include electronic components for Applied Technology and Aerostar, various polymeric resins for Engineered Films, and fabrics and film for Aerostar. Engineered Films has experienced volatile resin prices over the past three years. Price increases could not always be passed on to customers due to weak demand and/or a competitive pricing environment. Predicting future material volatility and the related potential impact on the Company is not easily estimated and the Company is unable to do so to the degree required to build reliance on such forecasts.

PATENTS

The Company owns a number of patents. The Company does not believe that its business, as a whole, is materially dependent on any one patent or related group of patents. The Company focuses significant research and development effort to develop technology-based offerings. As such, the protection of the Company’s intellectual property is an important strategic objective. Along with an aggressive posture toward patenting new technology and protecting trade secrets, the Company has restrictions on the disclosure of our technology to industry and business partners to ensure that our intellectual property is maintained and protected.

RESEARCH AND DEVELOPMENT

The three business segments conduct ongoing research and development (R&D) efforts to improve their product offerings and develop new products. Most of the Company's R&D expenditures are directed toward new product development. R&D investment is particularly strong within the Applied Technology Division. Development of new technology and product enhancements within Applied Technology is a competitive differentiator and central to its long-term strategy. Engineered Films also utilizes R&D spending to develop new products and to value engineer and reformulate its products. These R&D investments deliver high-value film solutions to the markets it serves and also result in lower raw material costs and improved quality for existing product lines. Aerostar's investment in the development of new technology has a particular emphasis on its core stratospheric balloon product platform. The Company's total R&D costs are presented in the Consolidated Statements of Income and Comprehensive Income.

ENVIRONMENTAL MATTERS

The Company believes that, in all material respects, it is in compliance with applicable federal, state and local environmental laws and regulations. Expenditures incurred in the past relating to compliance for operating facilities have not significantly affected the Company's capital expenditures, earnings, or competitive position.

In connection with the sale of substantially all of the assets of the Company's Glasstite, Inc. subsidiary in fiscal 2000, the Company agreed to assume responsibility for the investigation and remediation of any pre-October 29, 1999, environmental contamination at the Company's former Glasstite pickup-truck topper facility in Dunnell, Minnesota, as required by the Minnesota Pollution Control Agency (MPCA) or the United States Environmental Protection Agency.

The Company and the purchasers of the Company's Glasstite subsidiary conducted environmental assessments of the properties. The MPCA had evaluated these assessments until fiscal 2017 when this matter was closed. As a result of the conclusion of this matter, the Company reversed the $37 thousand liability that had been accrued as the Company's best estimate of probable costs related to this environmental matter. The Company is unaware of any potential liabilities as of January 31, 2017 for any environmental matters that would have a material effect on the Company's results of operations, financial position, or cash flows.

BACKLOG

As of February 1, 2017 , the Company's order backlog totaled approximately $25.7 million . Backlog amounts as of February 1, 2016 and 2015 were $18.6 million and $26.7 million , respectively. Because the length of time between order and shipment varies considerably by business segment and customers can change delivery schedules or potentially cancel orders, the Company does not believe that backlog, as of any particular date, is necessarily indicative of actual net sales for any future period.

EMPLOYEES

As of January 31, 2017, the Company had 941employees (including temporary workers). Following is a summary of active employees by segment: Applied Technology - 382 ; Engineered Films - 315 ; Aerostar - 163 ; and Corporate Services - 81 . Management believes its relationship with its employees is good.

EXECUTIVE OFFICERS

Name, Age, and Position	Biographical Data
Daniel A. Rykhus, 52 *President and Chief Executive Officer*	Mr. Rykhus became the Company's President and Chief Executive Officer in 2010. He joined the Company in 1990 as Director of World Class Manufacturing, was General Manager of the Applied Technology Division from1998 through 2009, and served as Executive Vice President from 2004 through 2010.
Steven E. Brazones, 43 *Vice President and Chief Financial Officer*	Mr. Brazones joined the Company in December 2014 as its Vice President, Chief Financial Officer, and Treasurer. From 2002 to 2014, Mr. Brazones held a variety of positions with H.B. Fuller Company. Most recently, he served as H.B. Fuller's Americas Region Finance Director. Previously, he served as the Assistant Treasurer and the Director of Investor Relations. Prior to his tenure with H.B. Fuller, Mr. Brazones held various roles at Northwestern Growth.
Stephanie Herseth Sandlin, 46 *General Counsel and Vice President of Corporate Development*	Ms. Herseth Sandlin joined the Company in August 2012 as General Counsel and Vice President of Corporate Development and also became the Company's Secretary in March 2013. Prior to joining the Company, Ms. Herseth Sandlin was a partner at OFW Law in Washington, D.C. from 2011 to 2012 and served as South Dakota's lone member of the United States House of Representatives from 2004 through 2011.
Janet L. Matthiesen, 59 *Vice President of Human Resources*	Ms. Matthiesen joined the Company in 2010 as Director of Administration and has been the Company's Vice President of Human Resources since 2012. Prior to joining Raven, Ms. Matthiesen was a Human Resource Manager at Science Applications International Corporation from 2002 to 2010.
Brian E. Meyer, 54 *Division Vice President and General Manager - Applied Technology Division*	Mr. Meyer was named Division Vice President and General Manager of the Applied Technology Division in May 2015. He joined the Company in 2010 as Chief Information Officer. Prior to joining the Company, Mr. Meyer was an information and technology executive in the health insurance industry and vice president of systems development in the property and casualty insurance industry.
Anthony D. Schmidt, 45 *Division Vice President and General Manager - Engineered Films Division*	Mr. Schmidt was named Division Vice President and General Manager of the Engineered Films Division in 2012. He joined the Company in 1995 in the Applied Technology Division performing various leadership roles within manufacturing and engineering. He transitioned to Engineered Films Division in 2011 as Manufacturing Manager.

ITEM 1A. RISK FACTORS

RISKS RELATING TO THE COMPANY

The Company's business is subject to many risks. Set forth below are the most important risks we face. In evaluating our business and your investment in the Company, you should also consider the other information presented in or incorporated by reference into this Annual Report on Form 10-K.

We have identified material weaknesses in our internal control over financial reporting which could, if not remediated, result in material misstatements in our consolidated financial statements. We may be unable to develop, implement, and maintain appropriate controls in future periods which could adversely affect our ability to report our financial condition and results of operations in a timely and accurate manner, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended (the Exchange Act). In Item 9A, "Controls and Procedures” of the Company’s Annual Report on Form 10-K/A for the fiscal year ended January 31, 2016 filed with the SEC on February 2, 2017, management reported the existence of material weaknesses in our internal control over financial reporting. The material weaknesses resulted in errors in our previously filed annual audited and interim unaudited consolidated financial statements.

A "material weakness" is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim consolidated financial statements will not be prevented or detected on a timely basis.

As a result of the material weaknesses, management concluded that our internal control over financial reporting was not effective as of January 31, 2016 and remains ineffective as of the date of this filing. The assessment was based on criteria described by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control - Integrated Framework* (2013). Also as a result of the material weaknesses, we concluded that our disclosure controls and procedures (as defined by Rules 13a-15(e) and 15d-15(e) under the Exchange Act) were not effective as of January 31, 2016 and remain ineffective as of the date of this filing. We are actively engaged in remediation activities designed to address the material weaknesses, but our remediation efforts are not complete and are ongoing. The progress made in remediating these material weaknesses is further described in Item 9A, "Controls and Procedures" of this Annual Report on Form 10-K. If our remediation measures are insufficient to address the material weaknesses, or if additional material weaknesses in our internal control are discovered or occur in the future, material misstatements in our consolidated financial statements could occur which could result in a further restatement of our consolidated financial statements and may materially adversely affect our ability to report our financial condition and results of operations in a timely and accurate manner. Although we continually review and evaluate our internal controls, we cannot assure you that we will not discover additional material weaknesses in our internal control over financial reporting. The next time we evaluate our internal control over financial reporting, if we identify one or more new material weaknesses or are unable to timely remediate our existing material weaknesses, we may be unable to assert that our internal controls are effective. If we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, which would have a material adverse effect on the price of our common stock.

We could also become subject to private litigation or investigations, or one or more government enforcement actions, arising out of the errors in our previously issued financial statements. Our management may be required to devote significant time and attention to these matters, and these and any additional matters that arise could have a material adverse impact on our results of operations, financial condition, liquidity, and cash flows.

The remediation measures in progress to address the material weaknesses have been time-consuming and expensive and could expose us to additional risks that could materially adversely affect our financial position, results of operations, and cash flows.
We have incurred expenses, including audit, legal, consulting, and other professional fees in connection with the ongoing remediation of material weaknesses in our internal control over financial reporting. We have taken a number of steps, including adding significant internal resources and have implemented a number of additional procedures in order to strengthen our internal control and risk assessment functions. To the extent these steps are not successful, we could be forced to incur additional time and expense. Our management's attention has also been diverted from the operation of our business in connection with the ongoing remediation of material weaknesses in our internal controls.

Weather conditions or natural disasters could affect certain of the Company's markets, such as agriculture and construction, or the Company's primary manufacturing facilities.
The Company's Applied Technology Division is largely dependent on the ability of farmers, agricultural service providers, and custom operators to purchase agricultural equipment, including its products. If such farmers experience weather conditions resulting in unfavorable crop prices or farm incomes, sales in the Applied Technology Division may be adversely affected.

Weather conditions can also adversely affect sales in the Company's Engineered Films Division. To the extent weather conditions curtail construction or agricultural activity, such as a late spring or drought, sales of the segment's plastic sheeting would likely decrease.

Seasonal, weather-related and market demand variation could also affect quarterly results. If expected sales are deferred in a fiscal quarter while inventory has been built and operating expenses incurred, financial results could be negatively impacted.

The Company's primary manufacturing facilities for each of its operating divisions are located on contiguous properties in Sioux Falls, South Dakota. If weather-related natural disasters such as tornadoes or flooding were to occur in the area, such conditions could impede the manufacturing and shipping of products and potentially adversely affect the Company's sales, transactions processing, and financial reporting. The Company has disaster recovery plans in place to mitigate the Company's risks to these vulnerabilities but these measures may not be adequate, implemented properly, or executed timely to ensure that the Company's operations are not disrupted. Such consequences could adversely affect our results of operations, financial condition, liquidity, and cash flows.

Price fluctuations in and shortages of raw materials could have a significant impact on the Company's ability to sustain and grow earnings.
The Company's Engineered Films Division utilizes significant amounts of polymeric resin, the cost of which depends upon market prices for natural gas and oil and other market forces. These prices are subject to worldwide supply and demand as well as other factors beyond the control of the Company. Although the Engineered Films Division is sometimes able to pass on such price increases to its customers, significant variations in the cost of polymeric resins can affect the Company's operating results from period to period. Unusual supply disruptions, such as one caused by a natural disaster, could cause suppliers to invoke "force majeure" clauses in their supply agreements, causing shortages of material. Success in offsetting higher raw material costs with price increases is largely influenced by competitive and economic conditions and could vary significantly depending on the market served. If the Company is not able to fully offset the effects of adverse materials availability and correspondingly higher costs, financial results could be adversely affected which in turn could adversely affect our results of operations, financial condition, liquidity, and cash flows.

Electronic components used by both the Applied Technology Division and Aerostar Division, are sometimes in short supply, and may impact our ability to meet customer demand.

If a supplier of raw materials or electronic components were unable to deliver due to shortage or financial difficulty, any of the Company's segments could be adversely affected.

Fluctuations in commodity prices can increase our costs and decrease our sales.
Agricultural income levels are affected by agricultural commodity prices and input costs. As a result, changes in commodity prices that reduce agricultural income levels could have a negative effect on the ability of growers and their service providers to purchase the Company's precision agriculture products manufactured by its Applied Technology Division.

Exploration for oil and natural gas fluctuates with their price and energy market conditions are subject to volatility. Certain plastic sheeting manufactured and sold by our Engineered Films Division is sold as pit and pond liners to contain water used in the drilling processes for these energy commodities. Lower prices for oil and natural gas could reduce exploration activities and demand for our products.

Film manufacturing uses polymeric resins, which can be subject to changes in price as the cost of oil or natural gas changes. Accordingly, volatility in oil and natural gas prices may negatively affect our raw material costs and cost of goods sold and potentially cause us to increase prices, which could adversely affect our sales and/or profitability.

Failure to develop and market new technologies and products could impact the Company's competitive position and have an adverse effect on the Company's financial results.
The Company's operating results in Applied Technology, Engineered Films, and Aerostar depend upon the ability to renew the pipeline of new products and services and to bring these to market. This ability could be adversely affected by difficulties or delays in product development such as the inability to identify viable new products, successfully complete research and development projects, obtain relevant regulatory approvals, obtain intellectual property protection, or gain market acceptance of new products and services. Because of the lengthy development process, technological challenges, and competition, there can be no assurance that any of the products the Company is currently developing, or could begin to develop in the future, will achieve commercial success. Technical advancements in products may also increase the risk of product failure, increasing product returns or warranty claims and settlements. In addition, sales of the Company's new products could replace sales of some of its current products, offsetting the benefit of even a successful new product introduction.

The Company's sales of products which are specialized and highly technical in nature are subject to uncertainties, start-up costs and inefficiencies, as well as market, competitive, and compliance risks.
The Company’s growth strategy relies on the design and manufacture of proprietary products. Highly technical, specialized product inventories may be more susceptible to fluctuations in market demand. If demand is unexpectedly low, write-downs or impairments of such inventory may become necessary. Either of these outcomes could adversely affect our results of operations. Start-up costs and inefficiencies can adversely affect operating results and such costs may not be recoverable in a proprietary product environment because the Company may not receive reimbursement from its customers for such costs.

Competition in agriculture markets could come from our current customers if original equipment manufacturers develop and integrate precision agriculture technology products themselves rather than purchasing from third parties, thereby reducing demand for Applied Technology’s products.

Regulatory restrictions could be placed on hydraulic fracturing activities because of environmental and health concerns, reducing demand for Engineered Film's products. For Engineered Films, the development of alternative technologies, such as closed loop drilling processes that reduce the need for pit liners in energy exploration, could also reduce demand for the Company's products.

Aerostar's future growth relies on sales of high-altitude balloons as well as advanced radar systems and aerostats to international markets. In limited cases, such sales may be Direct Commercial Sales to foreign governments rather than Foreign Military Sales through the U.S. government. Direct Commercial Sales to foreign governments often involve large contracts subject to frequent delays because of budget uncertainties, regional military conflicts, political instability, and protracted negotiation processes. Such delays could adversely affect our results of operations. The nature of these markets for Aerostar's radar systems and aerostats makes these products particularly susceptible to fluctuations in market demand. Demand fluctuations and the likelihood of delays in sales involving large contracts for such products also increase the risk of these products becoming obsolete, increasing the risk associated with expected sales of such products. The value of radar system and aerostat inventory are each approximately $4 million at January 31, 2017. This valuation is based on an estimate that the market demand for these products will be sufficient in future periods such that these inventories will be sold at a price greater than carrying value. Write-downs or impairment of the value of such products carried in inventory could adversely affect our results of operations. To the extent products become obsolete or anticipated sales are not realized, our expected future cash flows could be adversely impacted. This could lead to an impairment which could adversely impact the Company's results of operations and financial condition.

Sales of certain of Aerostar's products into international markets increase the compliance risk associated with regulations such as The International Traffic in Arms Regulations (ITAR), as well as others, exposing the Company to fines and its employees to fines, imprisonment, or civil penalties. Potential consequences of a material violation of such regulations include damage to our reputation, litigation, and increased costs.

The Company's Aerostar segment depends on the U.S. government for a significant portion of its sales, creating uncertainty in the timing of and funding for projected contracts.

A significant portion of Aerostar's sales are to the U.S. government or U.S. government agencies as a prime or sub-contractor. Government spending has historically been cyclical. A decrease in U.S. government defense or near-space research spending or changes in spending allocations could result in one or more of the Company's programs being reduced, delayed, or terminated. Reductions in the Company's existing programs, unless offset by other programs and opportunities, could adversely affect its ability to sustain and grow its future sales and earnings. The Company's U.S. government sales are funded by the federal budget, which operates on an October-to-September fiscal year. Changes in congressional schedules, negotiations for program funding levels, reduced program funding due to U.S government debt limitations, automatic budget cuts ("sequestration"), or unforeseen world events can interrupt the funding for a program or contract. Funds for multi-year contracts can be changed in subsequent years in the appropriations process.

In addition, many U.S. government contracts are subject to a competitive bidding and funding process even after the award of the basic contract, adding an additional element of uncertainty to future funding levels. Delays in the funding process or changes in funding are common and can impact the timing of available funds or can lead to changes in program content or termination at the government's convenience. The loss of anticipated funding or the termination of multiple or large programs could have an adverse effect on the Company's future sales and earnings.

The Company derives a portion of its revenues from foreign markets, which subjects the Company to business risks, including risk of changes in government policies and laws or worldwide economic conditions.

The Company's sales outside the U.S. were $35.5 million in fiscal 2017, representing approximately 13% of consolidated net sales. The Company's financial results could be affected by changes in trade, monetary and fiscal policies, laws and regulations, or other activities of U.S. and non-U.S. governments, agencies and similar organizations, along with changes in worldwide economic conditions. These conditions include, but are not limited to, changes in a country's or region's economic or political condition; trade regulations affecting production, pricing, and marketing of products; local labor conditions and regulations; reduced protection of intellectual property rights in some countries; changes in the regulatory or legal environment; restrictions on currency exchange activities; the impact of fluctuations in foreign currency exchange rates, which may affect product demand and may adversely affect the profitability of our products in U.S. dollars in foreign markets where payments are made in the local currency; burdensome taxes and tariffs; and other trade barriers. International risks and uncertainties also include changing social and economic conditions, terrorism, political hostilities and war, difficulty in enforcing agreements or collecting receivables, and increased transportation or other shipping costs. Any of these such risks could lead to reduced sales and reduced profitability associated with such sales.

Adverse economic conditions in the major industries the Company serves may materially affect segment performance and consolidated results of operations.
The Company's results of operations are impacted by the market fundamentals of the primary industries served. Significant declines of economic activity in the agricultural, oil and gas exploration, construction, industrial, aerospace/defense, and other major markets served may adversely affect segment performance and consolidated results of operations.

The Company may pursue or complete acquisitions which represent additional risk and could impact future financial results.
The Company's business strategy includes pursuing future acquisitions. Acquisitions involve a number of risks including integration of the acquired company with the Company's operations and unanticipated liabilities or contingencies related to the acquired company. Further, business strategies supported by the acquisition may be in perceived, or actual, opposition to strategies of certain of our customers and our business could be materially adversely affected if those relationships are terminated and the expected strategic benefits are delayed or are not achieved. The Company cannot ensure that the expected benefits of any acquisition will be realized. Costs could be incurred on pursuits or proposed acquisitions that have not yet or may not close which could significantly impact the operating results, financial condition, or cash flows. Additionally, after the acquisition, unforeseen issues could arise which adversely affect the anticipated returns or which are otherwise not recoverable as an adjustment to the purchase price. Other acquisition risks include delays in realizing benefits from the acquired companies or products; difficulties due to lack of or limited prior experience in any new product or geographic markets we enter; unforeseen adjustments, charges or write-offs; unforeseen losses of customers of, or suppliers to, acquired businesses; difficulties in retaining key employees of the acquired businesses; or challenges arising from increased geographic diversity and complexity of our operations and our information technology systems.

Total goodwill and intangible assets account for $52.7 million, or approximately 17%, of the Company's total assets as of January 31, 2017. The Company evaluates goodwill and intangible assets for impairment annually, or when evidence of potential impairment exists. The annual impairment test is based on several factors requiring judgment. Principally, a significant decrease in expected cash flows or changes in market conditions may indicate potential impairment of recorded goodwill or intangible assets. Our expected future cash flows are dependent on several factors including revenue growth in certain of our product lines and an expectation that the pricing in commodities markets will recover in future periods. Our expected future cash flows could be adversely impacted if our anticipated revenue growth is not realized or if pricing in commodities markets does not recover in future periods. Reductions in cash flows could result in an impairment of goodwill and/or intangible assets which could adversely impact the Company's results of operations and financial condition.

The Company may fail to continue to attract, develop, and retain key management and other key employees, which could negatively impact our operating results.
We depend on the performance of our senior management team and other key employees, including experienced and skilled technical personnel. The loss of certain members of our senior management, including our Chief Executive Officer, could negatively impact our operating results and ability to execute our business strategy. Our future success will also depend in part upon our ability to attract, train, motivate, and retain qualified personnel.

The Company may fail to protect its intellectual property effectively, or may infringe upon the intellectual property of others .
The Company has developed significant proprietary technology and other rights that are used in its businesses. The Company relies on trade secret, copyright, trademark, and patent laws and contractual provisions to protect the Company's intellectual property. While the Company takes enforcement of these rights seriously, other companies such as competitors or persons in related markets may attempt to copy or use the Company's intellectual property for their own benefit.

In addition, intellectual property of others also has an impact on the Company's ability to offer some of its products and services for specific uses or at competitive prices. Competitors' patents or other intellectual property may limit the Company's ability to offer products and services to its customers. Any infringement or claimed infringement by the Company of the intellectual property rights of others could result in litigation and adversely affect the Company's ability to continue to provide, or could increase the cost of providing, products and services and negatively impact sales and profitability. Any infringement by the Company could also result in judgments against the Company which could adversely affect our results of operations, financial condition, liquidity, and cash flows.

Among the Company’s legal proceedings is a patent infringement lawsuit filed in federal district court in Kansas by Capstan Ag Systems, Inc. In this lawsuit, Capstan Ag Systems Inc. has made certain infringement claims against the Company and one of its customers, CNH Industrial America LLC, related to the Applied Technology Division’s Hawkeye™ nozzle control system. This litigation is in the early stages and the potential costs and liability of this pending claim, if any, cannot be determined at this time.

Intellectual property litigation is very costly and could result in substantial expense and diversions of the Company's resources, both of which could adversely affect its businesses, financial condition, results of operations, and cash flows. In addition, there may be no effective legal recourse against infringement of the Company's intellectual property by third parties, whether due to limitations on enforcement of rights in foreign jurisdictions or as a result of other factors.

Technology failures or cyber-attacks on the Company's systems could disrupt the Company's operations or the functionality of its products and negatively impact the Company's business.
The Company increasingly relies on information technology systems to process, transmit, and store electronic information. In addition, a significant portion of internal communications, as well as communication with customers and suppliers depends on information technology. Further, the products in our Applied Technology and Aerostar segments depend upon GPS and other systems through which our products interact with government computer systems and other centralized information sources. We are exposed to the risk of cyber incidents in the normal course of business. Cyber incidents may be deliberate attacks for the theft of intellectual property or other sensitive information or may be the result of unintentional events. Like most companies, the Company's information technology systems may be vulnerable to interruption due to a variety of events beyond the Company's control, including, but not limited to, natural disasters, terrorist attacks, telecommunications failures, computer viruses, hackers, foreign governments, and other security issues. Further, attacks on centralized information sources could affect the operation of our products or cause them to malfunction. The Company has technology security initiatives and disaster recovery plans in place to mitigate the Company's risk to these vulnerabilities, but these measures may not be adequate, or implemented properly, or executed timely to ensure that the Company's operations are not disrupted. Potential consequences of a material cyber incident include damage to our reputation, litigation, and increased cyber security protection and remediation costs. Such consequences could adversely affect our results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Raven's corporate office is located in Sioux Falls, South Dakota. Along with the corporate headquarters building, the Company also owns separate manufacturing facilities for each of our business segments as well as various warehouses, training, and product development facilities in the immediate Sioux Falls area.

In addition to its Sioux Falls facilities, Applied Technology owns a product development facility in Austin, Texas. Applied Technology also leases manufacturing, warehouse, research, and office facilities in Middenmeer, Netherlands and Geel, Belgium as well as in Winnipeg, Manitoba and Stockholm, Saskatchewan in Canada. Furthermore, Applied Technology leases smaller research and office facilities in South Dakota.

Engineered Films also has additional owned production and conversion facilities located in Madison and Brandon, South Dakota and Midland, Texas.

Aerostar also owns manufacturing, sewing, and research facilities located in Madison, South Dakota and Sulphur Springs, Texas. Aerostar's subsidiary Vista also leases facilities in Arlington, Virginia and in Monterey, Chatsworth, and Sunnyvale, California.

Most of the Company's manufacturing plants also serve as distribution centers and contain offices for sales, engineering, and manufacturing support staff. The Company believes that its properties are suitable and adequate to meet existing production needs. Although there is idle capacity available in the Engineered Films Division, the productive capacity in the Company's facilities is substantially being used. The Company also owns approximately 28 acres of undeveloped land adjacent to the other owned property, which is available for expansion.

The following is the approximate square footage of the Company's owned or leased facilities by segment: Applied Technology - 154,000; Engineered Films - 610,000; Aerostar - 316,000; and Corporate - 150,000 .

ITEM 3. LEGAL PROCEEDINGS

The Company is involved as a party in lawsuits, claims, regulatory inquiries, or disputes arising in the normal course of its business, the potential costs and liability of which cannot be determined at this time. Among these matters is a patent infringement lawsuit in the early stages of litigation. In a lawsuit filed in federal district court in Kansas, Capstan Ag Systems, Inc. has made certain infringement claims against the Company and one of its customers, CNH Industrial America LLC, related to the Applied Technology

Division's Hawkeye TM nozzle control system. Management does not believe the ultimate outcomes of its legal proceedings are likely to be significant to its results of operations, financial position, or cash flows, except that, because of its preliminary stage, management cannot determine the potential impact, if any, of the patent infringement lawsuit described above.

The Company has insurance policies that provide coverage to various degrees for potential liabilities arising from legal proceedings.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

The Company's common stock is traded on the NASDAQ Global Select Market under the ticker symbol RAVN. The following table shows quarterly unaudited financial results, quarterly high and low trade prices per share of the Company's common stock, as reported by the NASDAQ Global Select Market, and dividends declared for the periods indicated:

QUARTERLY INFORMATION (UNAUDITED)

(Dollars in thousands, except per-share amounts)

	Net Sales	Gross Profit	Operating Income (Loss)	Pre-tax Income (Loss)	Net Income (Loss) Attributable to Raven	Net Income (Loss) Per Share [a]		Common Stock Market Price		Cash Dividends Per Share
						Basic	Diluted	High	Low	
FISCAL 2017										
First Quarter	**$ 68,360**	**$ 20,117**	**$ 8,050**	**$ 7,953**	**$ 5,517**	**$ 0.15**	**$ 0.15**	**$ 16.86**	**$ 12.88**	**$ 0.13**
Second Quarter	**67,598**	**18,915**	**6,696**	**6,487**	**4,495**	**0.12**	**0.12**	**21.58**	**15.01**	**0.13**
Third Quarter [b]	**72,522**	**19,839**	**7,389**	**7,116**	**5,741**	**0.16**	**0.16**	**25.47**	**20.21**	**0.13**
Fourth Quarter	**68,915**	**19,319**	**6,278**	**6,297**	**4,438**	**0.12**	**0.12**	**26.90**	**20.80**	**0.13**
Total Year	**$ 277,395**	**$ 78,190**	**$ 28,413**	**$ 27,853**	**$ 20,191**	**$ 0.56**	**$ 0.56**	**$ 26.90**	**$ 12.88**	**$ 0.52**
FISCAL 2016										
First Quarter	$ 70,273	$ 20,359	$ 7,214	$ 7,170	$ 4,855	$ 0.13	$ 0.13	$ 22.85	$ 16.91	$ 0.13
Second Quarter	67,518	17,858	6,429	6,163	4,191	0.11	0.11	22.36	18.52	0.13
Third Quarter [c]	67,611	16,972	(9,823)	(9,946)	(6,188)	(0.17)	(0.17)	19.53	15.77	0.13
Fourth Quarter	52,827	11,785	571	694	1,918	0.05	0.05	19.61	13.87	0.13
Total Year	$ 258,229	$ 66,974	$ 4,391	$ 4,081	$ 4,776	$ 0.13	$ 0.13	$ 22.85	$ 13.87	$ 0.52
FISCAL 2015										
First Quarter	$ 102,510	$ 31,766	$ 16,532	$ 16,453	$ 11,038	$ 0.30	$ 0.30	$ 40.06	$ 30.29	$ 0.12
Second Quarter	94,485	25,658	10,696	10,637	7,719	0.21	0.21	34.56	27.75	0.12
Third Quarter	91,292	24,339	10,159	10,087	6,783	0.19	0.18	30.74	22.13	0.13
Fourth Quarter	89,866	21,483	6,414	6,324	6,193	0.16	0.16	26.56	20.75	0.13
Total Year	$ 378,153	$ 103,246	$ 43,801	$ 43,501	$ 31,733	$ 0.86	$ 0.86	$ 40.06	$ 20.75	$ 0.50

[a] *Net income per share is computed discretely by quarter and may not add to the full year.*

[b] *The fiscal year 2017 third quarter includes inventory write-downs of $2,278 for Vista as a result of discontinuing sales activities for a specific radar product line within its business.*

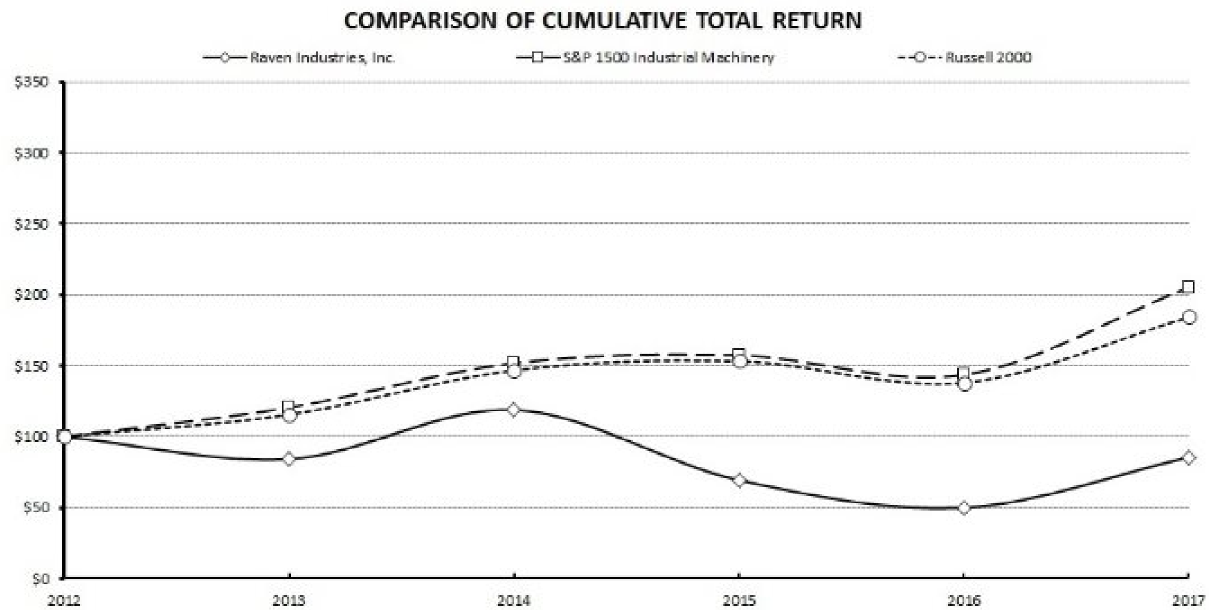
[c] *The fiscal year 2016 third quarter includes pre-contract cost write-offs of $2,933 (which is comprised of $2,075 of costs capitalized as of July 31, 2015 and additional costs of $858 capitalized during August and September 2015), a goodwill impairment loss of $11,497, a long-lived asset impairment loss of $3,813, and a reduction of $2,273 acquisition-related contingent liability for Vista. For further information regarding these impairments and other charges refer to the applicable notes to the consolidated financial statements included in Part II, Item 8 "Financial Statements and Supplementary Data" of this Form 10-K.*

As of January 31, 2017 , the Company had approximately 11,700 beneficial holders, which includes a substantial amount of the Company's common stock held of record by banks, brokers, and other financial institutions.

On November 3, 2014, the Company announced that its Board of Directors (Board) had authorized a $40.0 million stock buyback program. Effective March 21, 2016 the Board authorized an extension and increase of this stock buyback program. An additional $10.0 million was authorized for share repurchases once the $40.0 million authorization limit is reached.

During fiscal 2017, the Company made purchases of 484,252 common shares under this plan at an average price of $15.91 equating to a total cost of $7.7 million. None of these common shares were repurchased during the fourth quarter of fiscal 2017. During fiscal 2016, the Company made purchases of 1,602,545 common shares under this plan at an average price of $18.31 per share for a total cost of $29.3 million. None of these common shares were repurchased during the fourth quarter of fiscal 2016. There is approximately $12.9 million still available for share repurchases under this Board-authorized program which remains in place until such time as the authorized spending limit is reached or is otherwise revoked by the Board.

COMPARISON OF 5-YEAR CUMULATIVE TOTAL RETURN AMONG RAVEN INDUSTRIES, INC., S&P 1500 INDUSTRIAL MACHINERY INDEX AND RUSSELL 2000 INDEX



The above graph compares the cumulative total shareholders return on the Company's stock with the cumulative return of the S&P 1500 Industrial Machinery Index and the Russell 2000 index. Investors who bought $100 of the Company's stock on January 31, 2012 , held this for five years and reinvested the dividends would have seen its value decrease to $85.51 . Stock performance on the graph is not necessarily indicative of future price performance.

	Years Ended January 31,						5-Year
Company / Index	2012	2013	2014	2015	2016	2017	CAGR [(a)]
Raven Industries, Inc.	$ 100.00	$ 84.21	$ 118.83	$ 69.30	$ 49.92	$ 85.51	(3.1)%
S&P 1500 Industrial Machinery Index	100.00	120.45	151.75	157.33	143.50	205.32	15.5 %
Russell 2000 Index	100.00	115.47	146.69	153.15	137.96	184.21	13.0 %

[(a)] *compound annual growth rate (CAGR)*

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR FINANCIAL SUMMARY

(In thousands, except employee counts and per-share amounts)	For the years ended January 31,					
	2017	2016		2015	2014	2013
OPERATIONS						
Net sales	**$ 277,395**	$ 258,229		$ 378,153	$ 394,677	$ 406,175
Gross profit [a]	**78,190**	66,974		103,246	119,354	127,673
Operating income [a][b]	**28,413**	4,391		43,801	63,994	77,692
Income before income taxes [a][b]	**27,853**	4,081		43,501	63,623	77,646
Net income attributable to Raven Industries, Inc.	**20,191**	4,776		31,733	42,903	52,545
Net income % of sales	**7.3%**	1.8%		8.4%	10.9%	12.9%
Net income % of average equity [c]	**7.7%**	1.7%		11.4%	18.2%	26.2%
FINANCIAL POSITION						
Cash and cash equivalents	**$ 50,648**	$ 33,782		$ 51,949	$ 52,987	$ 49,353
Property, plant and equipment	**106,324**	115,704		117,513	98,076	81,238
Total assets	**301,509**	298,688		362,873	301,819	273,210
Total debt	**—**	—		—	—	—
Raven Industries, Inc. shareholders' equity	**259,426**	264,155		305,153	251,362	221,346
Net working capital [d]	**77,012**	77,870		100,183	97,184	88,054
Net working capital percentage [e]	**27.9%**	36.9%		27.9%	26.2%	24.6%
CASH FLOWS PROVIDED BY (USED IN)						
Operating activities	**$ 48,636**	$ 44,008		$ 60,083	$ 52,836	$ 76,456
Investing activities	**(4,642)**	(11,074)		(29,986)	(31,615)	(29,930)
Financing activities	**(27,151)**	(50,684)		(30,665)	(17,354)	(23,007)
Change in cash and cash equivalents	**16,866**	(18,167)		(1,038)	3,634	23,511
COMMON STOCK DATA						
EPS — basic	**$ 0.56**	$ 0.13		$ 0.86	$ 1.18	$ 1.45
EPS — diluted	**0.56**	0.13		0.86	1.17	1.44
Cash dividends per share	**0.52**	0.52		0.50	0.48	0.42
Book value per share [f]	**7.17**	7.22		8.01	6.89	6.09
Stock price range during the year						
High	**$ 26.90**	$ 22.85		$ 40.06	$ 42.99	$ 37.73
Low	**12.88**	13.87		20.75	25.46	23.01
Close	**25.05**	15.01		21.44	37.45	26.93
Shares and stock units outstanding, year-end	**36,175**	36,600		38,119	36,492	36,326
OTHER DATA						
Price / earnings ratio [g]	**44.7**	115.5		24.9	32.0	18.7
Average number of employees	**907**	936	1,251	1,251	1,264	1,350
Sales per employee	**$ 306**	$ 276		$ 302	$ 312	$ 301

[a] *The fiscal year ended January 31, 2017 includes inventory write-downs of $2,278 for Vista as a result of discontinuing sales activities for a specific radar product line within its business.*

[b] *The fiscal year ended January 31, 2016 includes pre-contract cost write-offs of $2,933, a goodwill impairment loss of $11,497, and a long-lived asset impairment loss of $3,826, partially offset by a reduction of $2,273 of an acquisition-related contingent liability for Vista.*

[c] *Net income attributable to Raven Industries, Inc. divided by average equity. Average equity is the sum of Raven Industries, Inc. shareholders' equity for the beginning of the fiscal year plus Raven Industries, Inc. shareholders' equity for the end of the fiscal year divided by two.*

[d] *Net working capital is defined as accounts receivable (net) plus inventories less accounts payable.*

[e] *Net working capital percentage is defined as net working capital divided by fourth quarter net sales times four for each of the fiscal years, respectively.*

[f] *Raven Industries, Inc. shareholders' equity divided by common shares and stock units outstanding.*

[g] *Closing stock price on last business day of fiscal year divided by EPS — diluted.*

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

The Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) is designed to enhance overall financial disclosure with commentary on the operating results, liquidity, capital resources, and financial condition of Raven Industries, Inc. (the Company or Raven). This commentary provides management's analysis of the primary drivers of year-over-year changes in key financial statement elements, business segment results, and the impact of accounting principles on the Company's financial statements. The most significant risks and uncertainties impacting the operating performance and financial condition of the Company are discussed in Item 1A., Risk Factors, of this Annual Report on Form 10-K (Form 10-K).

This discussion should be read in conjunction with Raven's Consolidated Financial Statements and notes thereto in Item 8 of this Form 10-K.

The MD&A is organized as follows:

- Executive Summary
- Results of Operations - Segment Analysis
- Liquidity and Capital Resources
- Off-Balance Sheet Arrangements and Contractual Obligations
- Critical Accounting Policies and Estimates
- Accounting Pronouncements

EXECUTIVE SUMMARY

Raven is a diversified technology company providing a variety of products to customers within the industrial, agricultural, geomembrane (which includes energy), construction, aerospace/defense, and situational awareness markets. The Company is comprised of three unique operating units, classified into reportable segments: Applied Technology Division (Applied Technology), Engineered Films Division (Engineered Films), and Aerostar Division (Aerostar). Segment information is reported consistent with the Company's management reporting structure.

Management uses a number of measures to assess the Company's performance:

- Consolidated net sales, gross margin, operating income, operating margin, net income, and diluted earnings per share
- Cash flow from operations and shareholder returns
- Return on sales, average assets, and average equity
- Segment net sales, gross profit, gross margin, operating margin, and operating income. At the segment level, operating income does not include an allocation of general and administrative expenses.

Raven's growth strategy focuses on its proprietary product lines and the Company made the decision in fiscal year 2015 to largely reduce its non-strategic contract manufacturing business. To assess the effectiveness of this strategy during the transition period, management has used two additional measures:

- Consolidated net sales excluding contract manufacturing sales (adjusted sales)
- Segment net sales excluding contract manufacturing sales (adjusted sales)

Information reported as net sales excluding contract manufacturing sales on both a consolidated and segment basis exclude sales generated from contract manufacturing activities and do not conform to generally accepted accounting principles (GAAP). As such, these are non-GAAP measures. As the reduction of contract manufacturing was largely completed in fiscal 2016, these additional measures are not utilized for comparisons to periods after fiscal 2016 and are excluded from the tables in this MD&A for fiscal 2017.

As described in the Notes to the Financial Statements of this Form 10-K, four significant unusual charges were recorded in Vista Research, Inc. (Vista) within the Aerostar Division in the fiscal 2016 third quarter. To allow evaluation of operating income and net income for the Company’s core business, the Company used three additional measures. The additional measurements are:

- Segment operating income excluding Vista charges (adjusted operating income)
- Consolidated operating income excluding Vista charges (consolidated adjusted operating income)
- Net income excluding Vista charges (adjusted net income)

Information reported as adjusted operating income and adjusted net income excluding the Vista charges, on both a consolidated and segment basis, do not conform to GAAP and are non-GAAP measures.

Non-GAAP measures should not be construed as an alternative to the reported results determined in accordance with GAAP. Non-GAAP measures exclude the impact of certain items (as further described below) and provide supplemental information regarding the operating performance of the Company and its operating segments. By disclosing these non-GAAP financial measures, management intends to provide a supplemental comparison of our operating results and trends for the periods presented. The Company believes these measures are also useful as they allow investors to evaluate our performance using the same metrics that management uses to evaluate past performance and prospects for future performance.

With regards to adjusted operating income and net income measures, management believes these measures assist in understanding the operating performance of the Company and its operating segments by excluding the impact of unusual charges which are non-recurring in nature and which, from management's perspective, significantly impact the comparison of year-over-year changes in underlying financial performance.

This non-GAAP information may not be consistent with the methodologies used by other companies. All non-GAAP measures are reconciled with reported GAAP results in the tables that follow.

Vision and Strategy
At Raven, our purpose is to solve great challenges. Great challenges require great solutions. Raven's three unique divisions share resources, ideas, and a passion to create technology that helps the world grow more food, produce more energy, protect the environment, and live safely.

The Raven business model is our platform for success. Our business model is defensible, sustainable, and gives us a consistent approach in the pursuit of quality financial results. This overall approach to creating value, which is employed across the three business segments, is summarized as follows:

- Intentionally serve a set of diversified market segments with attractive near- and long-term growth prospects;
- Consistently manage a pipeline of growth initiatives within our market segments;
- Aggressively compete on quality, service, innovation, and peak performance;
- Hold ourselves accountable for continuous improvement;
- Value our balance sheet as a source of strength and stability with which to pursue strategic acquisitions; and
- Make corporate responsibility a top priority.

The following discussion highlights the consolidated operating results for the years ended January 31, 2017, 2016, and 2015. Segment operating results are more fully explained in the Results of Operations - Segment Analysis section.

	For the years ended January 31,							
(dollars in thousands, except per-share data)		**2017**	% change		2016	% change		2015
Results of Operations								
Net sales	**$**	**277,395**	7.4%	$	258,229	(31.7)%	$	378,153
Gross margin [a]		**28.2%**			25.9%			27.3%
Operating income	**$**	**28,413**	547.1%	$	4,391	(90.0)%	$	43,801
Operating margin [a]		**10.2%**			1.7%			11.6%
Net income attributable to Raven Industries, Inc.	**$**	**20,191**	322.8%	$	4,776	(84.9)%	$	31,733
Diluted income per share	**$**	**0.56**	330.8%	$	0.13	(84.9)%	$	0.86
Adjusted net income attributable to Raven Industries, Inc. [b]	**$**	**20,191**	34.1%	$	15,053	(52.6)%	$	31,733
Cash Flow and Shareholder Returns								
Cash flow from operating activities	**$**	**48,636**		$	44,008		$	60,083
Cash outflow for capital expenditures	**$**	**4,642**		$	13,046		$	17,041
Cash dividends	**$**	**18,839**		$	19,426		$	18,519
Common share repurchases	**$**	**7,702**		$	29,338		$	—
Performance Measures								
Return on net sales [c]		**7.3%**			1.8%			8.4%
Return on average assets [d]		**6.7%**			1.4%			9.5%
Return on average equity [e]		**7.7%**			1.7%			11.4%

[a] *The Company's gross and operating margins may not be comparable to industry peers due to variability in the classification of expenses across industries in which the Company operates.*

[b] *Non-GAAP measure reconciled to GAAP in the applicable table below.*

[c] *Net income divided by net sales.*

[d] *Net income attributable to Raven Industries, Inc. divided by average assets. Average assets is the sum of Total Assets for the beginning of the fiscal year plus Total Assets for the end of the fiscal year divided by two.*

[e] *Net income attributable to Raven Industries, Inc. divided by average equity. Average equity is the sum of Total Raven Industries, Inc. shareholders' equity for the beginning of the fiscal year plus Total Raven Industries, Inc. shareholders' equity for the end of the fiscal year divided by two.*

The following table reconciles the reported net sales to adjusted sales, a non-GAAP financial measure. Adjusted sales excludes contract manufacturing and represents the Company's sales from proprietary products. As the reduction of contract manufacturing was largely completed in fiscal 2016, adjusted sales excluding manufacturing is not a meaningful measure in subsequent fiscal periods. As such fiscal 2017 has been excluded from this table.

	For the years ended January 31,		
(dollars in thousands)	2016	% change	2015
Applied Technology			
Reported net sales	$ 92,599	(34.9)%	$ 142,154
Less: Contract manufacturing sales	546	(90.6)%	5,832
Applied Technology net sales, excluding contract manufacturing sales	$ 92,053	(32.5)%	$ 136,322
Aerostar			
Reported net sales	$ 36,368	(55.0)%	$ 80,772
Less: Contract manufacturing sales	4,701	(85.2)%	31,669
Aerostar net sales, excluding contract manufacturing sales	$ 31,667	(35.5)%	$ 49,103
Consolidated Raven			
Reported net sales	$ 258,229	(31.7)%	$ 378,153
Less: Contract manufacturing sales	5,247	(86.0)%	37,501
Plus: Aerostar sales to Applied Technology	—	(100.0)%	10,553
Consolidated net sales, excluding contract manufacturing sales	$ 252,982	(28.0)%	$ 351,205

The following table reconciles the reported operating (loss) income to adjusted operating income, a non-GAAP financial measure. On both a segment and consolidated basis, adjusted operating income excludes the goodwill impairment loss, long-lived asset impairment loss, pre-contract cost write-offs, and an acquisition-related contingent consideration benefit all of which relate to the Vista business within the Aerostar Division and all of which occurred in the fiscal 2016 third quarter. These are described in more detail in Note 6 *Goodwill, Long-lived Assets, and Other Charges* and Note 5 *Acquisition of and Investments in Businesses and Technologies* of the Notes to the Consolidated Financial Statements.

	For the years ended January 31,				
(dollars in thousands)	**2017**	% change	2016	% change	2015
Aerostar					
Reported operating (loss) income	**$ (1,560)**	(89.5)%	$ (14,801)	(264.8)%	$ 8,983
Plus:					
Goodwill impairment loss	**—**	—	11,497	—	—
Long-lived asset impairment loss	—	—	3,813	—	—
Pre-contract costs written off	**—**	—	2,933	—	—
Less:					
Acquisition-related contingent liability benefit	**—**	—	2,273	—	—
Aerostar adjusted operating (loss) income [(a)]	**$ (1,560)**	(233.4)%	$ 1,169	(87.0)%	$ 8,983
Aerostar adjusted operating (loss) income % of net sales	***(4.6)%***		*3.2%*		*11.1%*
Consolidated Raven					
Reported operating income	**$ 28,413**	547.1 %	$ 4,391	(90.0)%	$ 43,801
Plus:					
Goodwill impairment loss	**—**	—	11,497	—	—
Long-lived asset impairment loss	**—**	—	3,813	—	—
Pre-contract costs written off	**—**	—	2,933	—	—
Less:					
Acquisition-related contingent liability benefit	**—**	—	2,273	—	—
Consolidated adjusted operating income	**$ 28,413**	39.5 %	$ 20,361	(53.5)%	$ 43,801
Consolidated adjusted operating income % of net sales	***10.2 %***		*7.9%*		*11.6%*

[(a)] At the segment level, adjusted operating (loss) income does not include an allocation of general and administrative expenses.

19

The following table reconciles the reported net income to adjusted net income, a non-GAAP financial measure. Adjusted net income excludes the goodwill impairment loss, long-lived asset impairment loss, pre-contract cost write-off, an acquisition-related contingent consideration benefit, and the income tax effect of these items, all of which relate to Vista.

	For the years ended January 31,				
(dollars in thousands)	**2017**	% change	2016	% change	2015
Consolidated Raven					
Reported net income attributable to Raven Industries, Inc.	**$ 20,191**	322.8%	$ 4,776	(84.9)%	$ 31,733
Plus:					
Goodwill impairment loss	—		11,497		—
Long-lived asset impairment loss	—		3,813		—
Pre-contract costs written off	—		2,933		—
Less:					
Acquisition-related contingent liability benefit	—		2,273		—
Net tax benefit on adjustments	—		5,693		—
Adjusted net income attributable to Raven Industries, Inc.	**$ 20,191**	34.1%	$ 15,053	(52.6)%	$ 31,733
Adjusted net income per common share:					
— Basic	**$ 0.56**	40.0%	$ 0.40	(53.5)%	$ 0.86
— Diluted	**$ 0.56**	40.0%	$ 0.40	(53.5)%	$ 0.86

Results of Operations - Fiscal 2017 compared to Fiscal 2016

The Company's net sales in fiscal 2017 were $277.4 million, an increase of $19.2 million, or 7.4%, from last year's net sales of $258.2 million. Despite the continued challenges within the end-markets in their primary markets of focus, the Applied Technology and Engineered Films divisions saw sales increases year-over-year. With respect to Aerostar, delays and uncertainties regarding certain opportunities important to the division's growth strategy resulted in lower net sales for this division.

Operating income for fiscal year 2017 was $28.4 million compared to $4.4 million in fiscal year 2016. The fiscal 2016 results were impacted by the Vista goodwill and long-lived impairment losses and associated financial impacts. Excluding these specific Vista related items, adjusted operating income for fiscal 2016 was $20.4 million. Adjusted operating income increased $8.0 million, or 39.5%, year-over-year. The adjusted operating income increase year-over-year was principally driven by higher sales volumes and lower manufacturing expenses in Applied Technology and Engineered Films.

Net income for fiscal year 2017 was $20.2 million, or $0.56 per diluted share, compared to net income of $4.8 million, or $0.13 per diluted share, in fiscal year 2016. The fiscal 2016 results were impacted by the Vista goodwill and long-lived asset impairments and associated financial impacts. Excluding these specific Vista related items, adjusted net income for fiscal 2016 was $15.1 million, or $0.40 per diluted share. On an adjusted basis, net income was up $5.1 million year-over-year, or $0.16 per diluted share, in fiscal 2017.

Applied Technology Division

Fiscal 2017 net sales increased $12.6 million, or 13.6%, to $105.2 million from $92.6 million in fiscal 2016. This increase in sales was driven by new product introductions and market share gains. Sales in the original equipment manufacturer (OEM) channel were up 25.1% while sales in the aftermarket channel increased 6.1%. The Company does not specifically model comparative market share position for any of its operating divisions, but based on the sales developments in fiscal 2017 the Company believes that Applied Technology's global market share position improved during the year as a result of new product sales and expanded OEM relationships.

Applied Technology's operating income increased by 45.4% to $26.6 million from $18.3 million in the prior year due primarily to higher sales volume and lower manufacturing expenses. End-market demand conditions remain subdued, but new product introductions have driven sales increases in fiscal 2017.

Engineered Films Division

Fiscal 2017 net sales were $138.9 million, an increase of $9.4 million, or 7.3%, compared to fiscal 2016. The increase in sales was driven by increases in the industrial, geomembrane (which includes energy), and construction markets, partially offset by a decrease in the agricultural market. Although the Company does not specifically model comparative market share position for any of its operating divisions, based on the sales developments in fiscal year 2017 the Company believes that Engineered Films' market share position improved during the year in all of the end markets served, with the exception of the agriculture market.

Engineered Film's operating income increased by 28.4% to $23.0 million from $17.9 million in the prior year due primarily to higher sales volume and lower manufacturing expenses. Higher production and sales volume helped improve capacity utilization and resulted in fixed cost leverage.

Aerostar Division
Fiscal 2017 net sales were $34.1 million compared to $36.4 million in fiscal 2016, down $2.3 million. The decline in sales for the division was principally driven by lower aerostat sales, partially offset by higher sales of stratospheric balloons. While it is particularly challenging to measure market share information for the Aerostar division and the Company does not specifically model comparative market share position for any of its operating divisions, the Company believes that Aerostar's market share position was largely unchanged during the year for all of the markets served, with the exception of radar products and services which the Company believes experienced an erosion of market share.

Aerostar reported an operating loss of $1.6 million in fiscal 2017 compared to an operating loss of $14.8 million in fiscal 2016. The fiscal 2016 results were impacted by the Vista goodwill and long-lived assets impairments and associated financial impacts. Excluding these specific Vista related items, adjusted operating income in fiscal 2016 was $1.2 million, compared to an operating loss of $1.6 million for fiscal 2017, a decline of $2.8 million on an adjusted basis. This decline in operating income was primarily driven by lower sales volume and $2.3 million of inventory write-downs related to certain radar systems, discussed in more detail in Note 6 *Goodwill, Long-lived Assets, and Other Charges* of the Notes to the Consolidated Financial Statements , and lower sales volume.

Results of Operations - Fiscal 2016 compared to Fiscal 2015
The Company's net sales in fiscal 2016 were $258.2 million, a decrease of $120.0 million, or 31.7%, from the prior year's net sales of $378.2 million. Excluding sales from contract manufacturing, fiscal year 2016 net sales were $253.0 million, down 28.0% from $351.2 million in fiscal year 2015. All divisions saw significant sales declines and continued to experience reduced end-market demand in their primary markets of focus. Adverse commodity market conditions drove reduced demand for both Applied Technology and Engineered Films, while reductions and delays in governmental defense spending reduced demand for Aerostar, and Vista in particular.

Operating income for fiscal year 2016 was $4.4 million compared to $43.8 million in fiscal year 2015. Operating income for fiscal year 2016, adjusted for the third quarter Vista goodwill and long-lived asset impairments and associated financial impacts, was $20.4 million compared to $43.8 million in fiscal year 2015, down 53.5% year-over-year. The adjusted operating income decline year-over-year was primarily due to the overall sales decline and lower operating margins in Applied Technology and lower Aerostar profitability driven by Vista. The Company initiated cost reduction measures across all divisions in fiscal 2016 to reduce overall spending. These cost control measures contributed to decreases of $2.8 million in research and development (R&D) expense and $9.4 million in selling, general and administrative expenses in fiscal year 2016 compared to fiscal 2015.

Net income for fiscal year 2016 was $4.8 million, or $0.13 per diluted share, compared to net income of $31.7 million, or $0.86 per diluted share, in fiscal year 2015. Net income for fiscal year 2016, adjusted for the Vista goodwill and long-lived asset impairments and associated financial impacts, was $15.1 million, down 52.6% compared to fiscal year 2015.

Applied Technology Division
Fiscal 2016 net sales decreased $49.6 million, or 34.9%, to $92.6 million from $142.2 million in fiscal 2015. This decline in sales was driven by a significant contraction in end-market demand. The Company believes that its market share in the United States was largely sustained, but that international market share declined, particularly in Latin America. Year-over-year sales to OEM and aftermarket customers declined by 42.1% and 23.8%, respectively.

Applied Technology's operating income decreased by 47.0% due primarily to lower sales volume. The price of corn declined to 8-year lows which led to significant declines in farmer incomes. Such macro-level market conditions impacted both grower sentiment and the manufacturing decisions of our strategic OEM partners.

Engineered Films Division
Engineered Films' fiscal 2016 net sales were $129.5 million, a decrease of $37.2 million, or 22.3%, compared to fiscal 2015. The decline in sales was primarily driven by the continuation of the substantial decline in demand in the geomembrane market (which includes energy) as a result of lower oil prices year-over-year partially offset by the benefit to sales due to the acquisition of Integra Plastics, Inc. (Integra) in November 2014. The Company does not specifically model comparative market share position for any

of its operating divisions, but based on customer feedback and evaluation of publicly-available financial information on competitors, these revenue trends are not believed to have been the result of a material loss of market share.

The acquisition of Integra improved the Company’s ability to meet customer’s complex conversion needs and leverage a more direct sales channel into the geomembrane (which includes energy) market. However, significant and sustained declines in energy sub-market demand resulted in declining sales to this market. With oil prices at multi-decade lows, sales into the geomembrane market were down approximately 66% year-over-year. Rig counts and well-completion rates continued to fall, driving down demand for Engineered Films’ geomembrane market products. Data available from Baker Hughes, a worldwide oil field service company, showed that land-based rig counts for the Permian Basin, the division’s primary market for its geomembrane products, were down approximately 60% year-over-year as of January 31, 2016 and well-completion rates were also down. The operations of Integra were fully integrated into Engineered Films’ operations in early fiscal 2016 and, as a result, separate quantification of its impact to net sales was not determinable.

Aerostar Division
Fiscal 2016 net sales were $36.4 million compared to $80.8 million in fiscal 2015, down $44.4 million. Excluding contract manufacturing sales, Aerostar's net sales decreased 35.5%, or $17.4 million, to $31.7 million for fiscal 2016. The decline in sales for the division was principally driven by Vista, but lower sales of stratospheric balloons also contributed to the decline.

Aerostar reported an operating loss of $14.8 million in fiscal 2016 compared to operating income of $9.0 million in fiscal 2015. The operating loss included the Vista goodwill and long-lived asset impairments and associated financial impacts. Excluding these items, adjusted Aerostar operating income was $1.2 million, or 87.0% below fiscal 2015 operating income of $9.0 million. This was primarily due to the lower sales volume of proprietary products, particularly within the Vista business.

From time to time, the Company incurs costs before a contract is finalized and such pre-contract costs are deferred to the balance sheet to the extent they relate to a specific project and the Company has concluded that is probable that the contract will be awarded for more than the amount deferred. Pre-contract cost deferrals are common with Vista's business pursuits. As described in Note 1 *Summary of Significant Accounting Policies* of the Notes to the Consolidated Financial Statements, pre-contract costs are evaluated for recoverability periodically. The Company was in negotiations throughout most of fiscal 2016 on a large international contract and also had a preauthorization letter from the prime contractor, but the contract did not materialize in the fiscal 2016 third quarter as expected. As a result, expectations were lowered as the timing and likelihood of completing certain international pursuits became less certain. Corresponding to these lower expectations, the pre-contract costs associated with these pursuits were written off and Vista recorded a charge of $2.9 million reported in “Cost of sales” in the Consolidated Statements of Income and Comprehensive Income. These charges were partially offset by a benefit of $2.3 million as the result of a reduction of an acquisition-related contingent liability (earn-out liability) due to the lowered forecast for the Aerostar Division.

RESULTS OF OPERATIONS - SEGMENT ANALYSIS

Applied Technology

Applied Technology designs, manufactures, sells, and services innovative precision agriculture products and information management tools that help growers reduce costs, more precisely control inputs, and improve yields for the global agriculture market. Applied Technology's operations include operations of SBG Innovatie BV and its affiliate, Navtronics BVBA (collectively, SBG), based in the Netherlands.

Financial highlights for the fiscal years ended January 31,

(dollars in thousands)	**2017**	% change	2016	% change	2015
Net sales	**$ 105,217**	13.6%	$ 92,599	(34.9)%	$ 142,154
Gross profit	**43,476**	28.0%	33,969	(41.8)%	58,325
Gross margin	**41.3%**		36.7%		41.0%
Operating expense	**$ 16,833**	7.6%	$ 15,650	(34.2)%	$ 23,768
Operating expense as % of sales	**16.0%**		16.9%		16.7%
Operating income [(a)]	**$ 26,643**	45.4%	$ 18,319	(47.0)%	$ 34,557
Operating margin	**25.3%**		19.8%		24.3%
Applied Technology net sales, excluding contract manufacturing sales [(b)]	NMF	NMF	$ 92,053	(32.5)%	$ 136,322

[(a)] *At the segment level, operating income does not include an allocation of general and administrative expenses.*

[(b)] *Reduction of contract manufacturing was largely completed in fiscal 2016; measure is not meaningful (NMF) for comparisons in subsequent fiscal periods.*

For fiscal 2017, net sales increased $12.6 million , or 13.6% , to $105.2 million as compared to $92.6 million in fiscal 2016. Operating income increased $8.3 million , or 45.4% , to $26.6 million as compared to fiscal 2016 .

Fiscal 2017 fourth quarter net sales increased $7.5 million , or 40.4% , to $25.9 million and operating income increased $4.1 million , or 184.3% , to $6.4 million compared to fourth quarter fiscal 2016 .

Fiscal 2017 comparative results were primarily driven by the following factors:

- *Market conditions.* Conditions in the agriculture market remain subdued; however, Applied Technology's marketplace strategy has capitalized on new product introductions in fiscal 2017. While OEM and aftermarket sales channel demand remains challenging, Applied Technology achieved fourth quarter and year-to-date sales growth compared to the prior year primarily due to market share gains driven by new product introductions and expanded relationships with OEM partners. These were the primary growth drivers both domestically and internationally.
- *Sales volume.* Fiscal 2017 sales increased 13.6% to $105.2 million as compared to $92.6 million in the prior fiscal year. Sales in the OEM and aftermarket channels were up 25.1% and 6.1%, respectively, in fiscal 2017. Fiscal 2017 domestic sales were up 9.9% while international sales were up 24.8%.
- *International sales.* Net sales outside the U.S. accounted for 27.6% of segment sales in fiscal 2017 compared to 25.1% in fiscal 2016. International sales increased $5.8 million, or 24.8%, to $29.0 million in fiscal 2017 compared to fiscal 2016. Higher sales in Canada and Europe were the primary drivers of the increase. European revenue growth included strong growth at SBG in fiscal 2017. For the fourth quarter, international sales totaled $5.9 million, an increase of 29.8% from the prior year comparative quarter.
- *Gross margin.* Gross margin increased from 36.7% in fiscal 2016 to 41.3% in fiscal 2017. Higher sales volume and lower manufacturing costs including increased leverage of fixed manufacturing costs contributed to the higher margin. Due to the existing available capacity of the facilities, the increase in sales volume did not require a commensurate increase in costs in fiscal 2017.
- *Restructuring expenses.* Fiscal 2016 results included severance and other related exit activity totaling $0.6 million. These costs were offset by completion of the St. Louis contract manufacturing exit activities which resulted in gains of $0.6 million recorded in the fiscal 2016 results. There were no impairments recorded as a result of the exit of this business. No restructuring or exit costs were incurred in the three-month period ended January 31, 2016. No restructuring or exit costs were incurred in the three-month or year-to-date period ended January 31, 2017.
- *Operating expenses.* Fiscal 2017 operating expenses were 16.0% of net sales compared to 16.9% for the prior year. Operating expenses increased less than revenues due primarily to continued cost control measures and resulted in a lower percentage of sales year-over-year.

For fiscal 2016, net sales decreased $49.6 million , or 34.9% , to $92.6 million as compared to $142.2 million in fiscal 2015. Operating income decreased $16.2 million , or 47.0% , to $18.3 million as compared to fiscal 2015 .

Fiscal 2016 fourth quarter net sales declined $8.0 million , or 30.3% , to $18.4 million and operating income decreased $1.2 million , or 34.7% , to $2.2 million compared to fourth quarter fiscal 2015 .

Fiscal 2016 comparative results were primarily driven by the following factors:

- *Market conditions.* Deteriorating conditions in the agriculture market put pressure on Applied Technology during fiscal 2016. End-market demand had deteriorated from the beginning of the year. Corn prices had stabilized since the beginning of the year but were still at multi-year lows. Farm incomes and farmer sentiment were weak, resulting in productivity investments in precision agriculture equipment being delayed.
- *Sales volume.* Fiscal 2016 sales declined 34.9% to $92.6 million as compared to $142.2 million in the prior fiscal year. These sales declines were driven by continued lower demand, OEM shutdowns, and customers managing down inventory levels. Sales in the OEM and aftermarket channels were down 42.1% and 23.8%, respectively, for fiscal 2016. Fiscal 2016 domestic sales were down 37.6% while international sales were down 25.2%.
- *Strategic sales* . Applied Technology’s net sales, excluding contract manufacturing sales, for fiscal 2016 were $92.1 million, a decrease of 32.5%, compared to $136.3 million in fiscal 2015.
- *International sales.* Net sales outside the U.S. accounted for 25.1% of segment sales in fiscal 2016 compared to 21.9% in fiscal 2015. International sales decreased $7.9 million, or 25.2%, to $23.3 million in fiscal 2016 compared to fiscal 2015. Lower sales in Latin America, Canada, and South Africa were the primary drivers of the decline. These declines were partially offset by higher European revenues. European revenues were favorably impacted by the acquisition of SBG in fiscal 2015 second quarter. For the fourth quarter, international sales totaled $4.6 million, an increase of 45.6% from the prior year comparative quarter. The fiscal fourth quarter 2015 sales were reduced by credits issued related to

quality issues on products sold in Latin America and without these credits, the year-over-year fourth quarter increase would have been approximately 19%.

- *Gross margin.* Gross margin declined from 41.0% in fiscal 2015 to 36.7% in fiscal 2016. Lower sales volume and a reduced leverage of fixed manufacturing costs contributed to the lower margin.
- *Restructuring expenses.* Fiscal 2016 results included severance and other related exit activity totaling $0.6 million. These costs were offset by completion of the St. Louis contract manufacturing exit activities which resulted in gains of $0.6 million recorded in the fiscal 2016 results. There were no impairments recorded as a result of the exit of this business. No restructuring or exit costs were incurred in the three-month period ended January 31, 2016. Restructuring costs of $0.3 million were incurred for the three-month period ended January 31, 2015.
- *Operating expenses.* Fiscal 2016 operating expenses were 16.9% of net sales compared to 16.7% for the prior year. Restructuring efforts and cost containment actions reduced both selling expense and R&D expense as planned, but were not enough to offset the impact to division profit from lower sales volume.

Engineered Films

Engineered Films manufactures high performance plastic films and sheeting for geomembrane (which includes energy), agricultural, construction, and industrial applications. Engineered Films' ability to develop value-added innovative products is expanded by its fabrication and conversion capabilities.

Financial highlights for the fiscal years ended January 31,

(dollars in thousands)		**2017**	% change		2016	% change		2015
Net sales	**$**	**138,855**	7.3 %	$	129,465	(22.3)%	$	166,634
Gross profit		**29,407**	17.3 %		25,076	(10.8)%		28,104
Gross margin		**21.2%**			19.4%			16.9%
Operating expenses	**$**	**6,441**	(10.3)%	$	7,184	14.0 %	$	6,302
Operating expenses as % of sales		**4.6%**			5.5%			3.8%
Operating income [(a)]	**$**	**22,966**	28.4 %	$	17,892	(17.9)%	$	21,802
Operating margin		**16.5%**			13.8%			13.1%

[(a)] *At the segment level, operating income does not include an allocation of general and administrative expenses.*

For fiscal 2017, net sales increased $9.4 million , or 7.3% , to $138.9 million as compared to fiscal 2016. Operating income was $23.0 million , up 28.4% for fiscal 2017 as compared to $17.9 million for fiscal 2016 .

For fiscal 2017 fourth quarter net sales increased $9.1 million , or 35.8% , to $34.5 million as compared to $25.4 million in the fiscal 2016 fourth quarter. Operating income was up $3.4 million , or 177.3% , to $5.3 million as compared to $1.9 million in the prior year fourth quarter.

Fiscal 2017 comparative results were primarily driven by the following factors:

- *Market conditions.* End-market conditions have improved in the geomembrane (which includes energy) market in the second half of fiscal 2017 for Engineered Films. U.S. land-based rig counts have increased approximately 17% from January 2016 to January 2017. For fiscal 2017, sales into the geomembrane market increased 16.9% year-over-year.
- *Sales volume and selling prices* . Fiscal 2017 net sales were up 7.3% to $138.9 million compared to fiscal 2016 net sales of $129.5 million. Sales volume, measured in pounds, for fiscal 2017 was up 11.4%. Primary drivers of the increase in sales volume included the improved market conditions within the geomembrane market and new sales into the industrial and geomembrane markets as a result of successfully selling capacity of the division's new production line that was commissioned in the fiscal 2017 first quarter. Average selling prices for the same period were down approximately 3.7% compared to the prior fiscal year primarily due to product mix and the competitive landscape in the geomembrane market. Fourth quarter fiscal 2017 sales volume was up 34.0% compared to fourth quarter fiscal 2016. Fourth quarter average selling prices increased 1.3% year-over-year.
- *Gross margin.* Fiscal 2017 gross margin was 21.2%, 1.8 percentage points higher than the prior fiscal year. During fiscal 2017 fourth quarter, the gross margin was 20.5% compared to 15.0% in the prior year fourth quarter. The increase for both periods was primarily the result of higher sales volume. Due to the existing available capacity of the facilities, the increase in sales volume did not require a commensurate increase in costs in fiscal 2017. In addition, benefits from value engineering, reformulation efforts, pricing discipline, and favorable raw material cost developments also benefited gross margin.
- *Operating expenses.* Fiscal 2017 operating expenses, as a percentage of net sales, decreased to 4.6%, from 5.5% in the prior year. Sales volume increased while selling expense decreased compared to fiscal year 2016 as a result of cost control measures and lower bad debt expense.

For fiscal 2016, net sales decreased $37.2 million , or 22.3% , to $129.5 million as compared to fiscal 2015. Operating income was $17.9 million for fiscal 2016 , down 17.9% , as compared to $21.8 million for fiscal 2015 .

For fiscal 2016 , fourth quarter net sales decreased $15.4 million , or 37.8% , to $25.5 million as compared to $40.9 million in the fiscal 2015 fourth quarter. Operating income was down $2.7 million , or 58.8% , to $1.9 million as compared to $4.6 million in the prior year fourth quarter.

Fiscal 2016 comparative results were primarily driven by the following factors:

- *Market conditions.* Challenging end-market conditions persisted in the geomembrane (which includes energy) market for Engineered Films. The decline in oil prices resulted in land-based rig counts decreasing more than 60% year-over-year along with declining well-completion rates. While the decline in oil prices reduced demand for sales of film into the geomembrane market, it also led to favorable raw material cost comparisons versus the prior year. While the geomembrane market experienced challenging end-market conditions, demand continued to strengthen for both Engineered Films' agricultural barrier films used in high-value crop production and grain and silage covers used to protect grain and feed.
- *Sales volume and selling prices* . Fiscal 2016 net sales were down 22.3% to $129.5 million compared to fiscal 2015 net sales of $166.6 million. The decline in sales was driven primarily by a 66% decline in geomembrane market sales. These declines were partially offset by the acquisition of Integra. Sales volume for fiscal 2016 was down 27.5%. Average selling prices for the same period were up approximately 7% compared to the prior fiscal year primarily due to product mix. Fourth quarter fiscal 2016 sales volume was down approximately 38% compared to fourth quarter fiscal 2015. Fourth quarter average selling prices remained flat year-over-year.
- *Gross margin.* Fiscal 2016 gross margin was 19.4%, 2.5 percentage points higher than the prior fiscal year. This increase was the result of gross margin expansion from value engineering, reformulation efforts, pricing discipline, and favorable raw material cost comparisons. During fiscal 2016 fourth quarter, the gross margin was 15.0% compared to 16.2% in the prior year fourth quarter. The decline was due to significantly lower volume and the resulting decline in fixed cost absorption.
- *Operating expenses.* Fiscal 2016 operating expenses, as a percentage of net sales, increased to 5.5%, from 3.8% in the prior year. Higher selling expenses resulting from the Integra acquisition, additional R&D costs for new product development activities and higher bad debt expense over lower sales volume increased operating expense as a percentage of sales.

Aerostar

Aerostar serves the aerospace/defense and situational awareness markets. Aerostar had also provided significant contract manufacturing services in the past, but largely exited this business in fiscal 2016. Aerostar designs and manufactures proprietary products including stratospheric balloons, tethered aerostats, and radar processing systems for aerospace and situational awareness markets. These products can be integrated with additional third-party sensors to provide research, communications, and situational awareness capabilities to governmental and commercial customers. Aerostar pursues product and support services contracts for agencies and instrumentalities of the U.S. and foreign governments.

Financial highlights for the fiscal years ended January 31,

(dollars in thousands)	**2017**	% change	2016	% change	2015
Net sales	**$ 34,113**	(6.2)%	$ 36,368	(55.0)%	$ 80,772
Gross profit	**5,319**	(32.1)%	7,838	(52.9)%	16,654
Gross margin	**15.6 %**		21.6 %		20.6%
Operating expenses	**$ 6,792**	(7.2%)	$ 7,316	(4.6)%	$ 7,671
Operating expenses as % of sales	**19.9 %**		20.1 %		9.5%
Goodwill and long-lived asset impairment loss	**$ 87**		15,323		
Operating (loss) income [(a)]	**$ (1,560)**	(89.5)%	(14,801)	(264.8)%	8,983
Operating margin	**(4.6)%**		(40.7)%		11.1%
Aerostar net sales, excluding contract manufacturing sales [(b)]	NMF	NMF	$ 31,667	(35.5)%	$ 49,103

[(a)] *At the segment level, operating (loss) income does not include an allocation of general and administrative expenses.*

[(b)] *Reduction of contract manufacturing was largely completed in fiscal 2016; measure is not meaningful (NMF) for comparisons in subsequent fiscal periods.*

Net sales declined 6.2% to $34.1 million from last year's net sales of $36.4 million. Operating loss was $1.6 million , down $13.2 million , compared to fiscal 2016 operating loss of $14.8 million. The fiscal 2016 results were impacted by the Vista goodwill and long-lived asset impairments and associated financial impacts. Excluding these Vista related items, adjusted operating income in fiscal 2016 was $1.2 million, compared to an operating loss of $1.6 million for fiscal 2017, a decline of $2.8 million on an adjusted basis.

Fiscal 2017 fourth quarter net sales declined $0.2 million, or 2.5%, to $8.8 million. Aerostar reported fiscal 2017 fourth quarter operating income of $0.2 million, flat compared with the prior year fourth quarter.

Fiscal 2017 comparative results were primarily driven by the following factors:

- *Market conditions* . Aerostar is experiencing delays and uncertainties regarding certain opportunities important to the division's growth strategy, and some of Aerostar's markets are subject to significant variability due to government spending and the timing of contract awards. Aerostar is pioneering new markets with leading-edge applications of its high-altitude balloons and remains in active collaboration with Google on Project Loon. Project Loon is a program to provide high-speed wireless Internet accessibility and telecommunications to rural, remote, and under-served areas of the world.
- *Sales volume.* Fiscal 2017 net sales decreased $2.3 million from the prior year, a year-over-year decrease of 6.2%. The decline was principally driven by lower aerostat sales due to the timing of deliveries. This was partially offset by higher sales of stratospheric balloons for Project Loon and other customers newly established in fiscal 2017.
- *Gross margin.* For fiscal 2017, gross margin decreased 6.0 percentage points compared to the prior fiscal year. Fiscal 2017 gross margin decline was primarily driven by lower sales volume and $2.3 million of inventory write-downs related to certain radar systems discussed in more detail in Note 6 *Goodwill, Long-lived Assets, and Other Charges* of the Notes to the Consolidated Financial Statements , offset somewhat by a $1.3 million reduction in depreciation and amortization expense due to the long-lived asset impairment charges recorded in fiscal 2016.
- *Goodwill and long-lived asset impairment loss.* In fiscal 2016, Aerostar recorded a goodwill impairment loss of $11.5 million and a long-lived asset impairment loss of $3.8 million. These impairment charges were recorded in the Vista reporting unit and are described more fully in Note 6 *Goodwill, Long-lived Assets, and Other Charges* of the Notes to the Consolidated Financial Statements. As also described in Note 6 *Goodwill, Long-lived Assets, and Other Charges,* a $0.1 million long-lived asset impairment loss was recorded in fiscal 2017 on the Radar asset group. Expense control measures executed throughout fiscal year 2017 reduced operating expenses year-over-year.
- *Operating expenses.* Operating expenses as a percentage of net sales was essentially flat year-over- year. Fiscal 2017 operating expenses of $6.8 million were 19.9% of net sales compared to operating expenses of $7.3 million, equivalent to 20.1% of net sales in fiscal 2016.
- *Aerostar adjusted operating income.* Aerostar reported an operating loss of $1.6 million in fiscal 2017 compared to an operating loss of $14.8 million in fiscal 2016. The fiscal 2016 results were impacted by the Vista goodwill and long-lived asset impairments and associated financial impacts. Excluding these Vista related items, adjusted operating income in fiscal 2016 was $1.2 million, compared to an operating loss of $1.6 million for fiscal 2017, a decline of $2.8 million on an adjusted basis. This decline in operating income was primarily driven by lower sales volume and $2.3 million of inventory write-downs related to certain radar systems, offset somewhat by a $1.3 million reduction in depreciation and amortization expense due to the long-lived asset impairment charges recorded in fiscal 2016.

Fiscal 2016 net sales declined 55.0% to $36.4 million from fiscal 2016 net sales of $80.8 million. Fiscal 2016 operating loss was $14.8 million, down $23.8 million, compared to fiscal 2015 operating income of $9.0 million. Fiscal 2016 operating loss included a goodwill impairment loss of $11.5 million, a long-lived asset impairment loss of $3.8 million, and associated financial impacts (a $2.9 million pre-contract cost write-off and a $2.3 million acquisition-related contingent consideration benefit) all of which relate to Vista.

Fiscal 2016 fourth quarter net sales declined $15.6 million, or 63.3%, to $9.0 million compared to fiscal 2015 fourth quarter results. Aerostar reported a fiscal 2016 fourth quarter operating income of $0.2 million compared to an operating income of $4.3 million in the prior year fourth quarter.

Fiscal 2016 comparative results were primarily driven by the following factors:

- *Market conditions* . Aerostar's growth strategy emphasizes proprietary products and its focus was on proprietary technology including stratospheric balloons, advanced radar systems, and sales of aerostats in international markets. Certain of Aerostar's markets are subject to significant variability due to government spending. Uncertain demand in these markets continued in fiscal 2016 as defense spending was down. Aerostar continued to pursue substantial targeted international opportunities but the conflicts plaguing the Middle East North Africa region made these opportunities and their timing less certain.

- *Sales volume.* Fiscal 2016 net sales decreased $44.4 million from the prior year, a year-over-year decrease of 55.0%. The decline was the result of both lower sales of proprietary products, particularly Vista radar sales, and the planned reduction in contract manufacturing sales.
- *Proprietary net sales.* For fiscal 2016, net sales for proprietary products were $31.7 million, down $17.4 million, or 35.5%, from the prior fiscal year. Sales of proprietary products were down primarily due to Vista's lack of success in winning certain international contracts and declines in domestic government defense spending that reduced revenues for Vista.
- *Gross margin.* For fiscal 2016, gross margin increased 1.0 percentage point compared to the prior fiscal year. Fiscal 2016 gross margin reflected net charges of $0.6 million which are discussed further below. Vista had been pursuing international opportunities and throughout the first half of fiscal 2016 was in the process of negotiating a large international contract for which it also had a pre-authorization letter from the prime contractor. When the contract did not materialize in the fiscal 2016 third quarter as expected, expectations were lowered as the timing and likelihood of completing certain international pursuits became less certain. Corresponding to these lower expectations, the pre-contract costs associated with these pursuits were written off during the fiscal 2016 third quarter. Vista recorded a charge of $2.9 million for the write-off of these pre-contract costs. Partially offsetting this impairment charge, Vista recorded a benefit of $2.3 million to reflect a reduction in acquisition-related contingent liabilities due to lower expected payouts.
- *Goodwill and long-lived asset impairment loss.* Aerostar recorded a goodwill impairment loss of $11.5 million and a long-lived asset impairment loss of $3.8 million for fiscal 2016. The goodwill and long-lived impairment charges were recorded on the Vista reporting unit. These impairment losses are described more fully in Note 6 *Goodwill, Long-lived Assets, and Other Charges* of the Notes to the Consolidated Financial Statements. No impairment losses were recorded in fiscal 2015.
- *Operating expenses.* Fiscal 2016 operating expenses of $7.3 million were 20.1% of net sales compared to $7.7 million, or 9.5% of net sales in fiscal 2015. The increase in operating expenses, as a percentage of net sales, was due to continued strategic R&D spending on radar and stratospheric technologies over lower sales.
- *Aerostar adjusted operating income.* Excluding the Vista goodwill and long-lived asset impairment losses and associated financial impacts, the fiscal 2016 operating income was $1.2 million, down from $9.0 million in the prior year. These operating income declines were driven primarily by the significant declines in sales volume for the year for both contract manufacturing and proprietary products, in particular Vista.

Corporate Expenses (administrative expenses; other (expense), net; and income taxes)

dollars in thousands	For the years ended January 31, **2017**	2016	2015
Administrative expenses	**$ 19,624**	$ 17,110	$ 21,704
Administrative expenses as a % of sales	**7.1%**	6.6 %	5.7%
Other (expense), net	**$ (560)**	$ (310)	$ (300)
Effective tax rate	**27.5%**	(18.8)%	26.9%

Administrative expenses increased $2.5 million in fiscal 2017 compared with fiscal 2016 . The increase is primarily due to higher accruals for management incentives and equity compensation relative to the prior year based upon fiscal 2017 results in comparison to fiscal 2016, costs incurred to amend filings, and expenses related to remediation efforts for identified material weaknesses discussed in more detail in "Management's Report On Internal Control Over Financial Reporting " in Item 8 of this Form 10-K.

Other (expense), net consists primarily of activity related to the Company's equity investments, interest income, foreign currency transaction gains or losses, amortization of debt issuance costs, and other fees related to the Company's credit facility further described in Note 10 *Financing Arrangements* of the Notes to the Consolidated Financial Statements.

The Company's fiscal 2017 effective tax rate was 27.5% compared to (18.8)% in the prior year. The difference in the effective tax rate is primarily due to the significantly lower pre-tax income in fiscal 2016 driven by the goodwill and long-lived asset impairment losses. The impacts of these losses on the Company's effective tax rate and other items causing the effective tax rate to differ from the statutory tax rate are more fully described in Note 9 *Income Taxes* of the Notes to the Consolidated Financial Statements. For fiscal year 2018, the Company expects a consolidated effective tax rate of approximately 29%, excluding discrete items.

LIQUIDITY AND CAPITAL RESOURCES

The Company's balance sheet continues to reflect significant liquidity and a strong capital base. Management focuses on the current cash balance and operating cash flows in considering liquidity, as operating cash flows have historically been the Company's primary source of liquidity. Management expects that current cash, combined with the generation of positive operating cash flows, will be sufficient to fund the Company's normal operating, investing and financing activities beyond the next twelve months.

The Company's cash balances and cash flows were as follows:

(dollars in thousands)		**January 31, 2017**		January 31, 2016		January 31, 2015
Cash and cash equivalents	**$**	**50,648**	$	33,782	$	51,949
Short-term investments		**—**		—		250

	For the years ended January 31,					
(dollars in thousands)		**2017**		2016		2015
Cash provided by operating activities	**$**	**48,636**	$	44,008	$	60,083
Cash used in investing activities		**(4,642)**		(11,074)		(29,986)
Cash used in financing activities		**(27,151)**		(50,684)		(30,665)
Effect of exchange rate changes on cash and cash equivalents		**23**		(417)		(470)
Net increase (decrease) in cash and cash equivalents	**$**	**16,866**	$	(18,167)	$	(1,038)

Cash and cash equivalents totaled $50.6 million at January 31, 2017 compared to $33.8 million on the same date in 2016 , an increase of $16.8 million. The increase from fiscal 2016 year-end was primarily driven by higher earnings, lower net working capital, and reductions in both capital spending and share repurchases.

At January 31, 2017 the Company held cash and cash equivalents of $2.3 million in accounts outside the United States. These balances included undistributed earnings of foreign subsidiaries we consider to be indefinitely reinvested. If repatriated, undistributed earnings of $2.5 million would be subject to United States federal taxation. This estimated tax liability is approximately $0.3 million net of foreign tax credits. Our liquidity is not materially impacted by the amount held in accounts outside of the United States.

Operating Activities

Operating cash flows result primarily from cash received from customers, which is offset by cash payments for inventories, services, employee compensation, and income taxes. Cash provided by operating activities was $48.6 million in fiscal 2017 compared with $44.0 million in fiscal 2016 . The $4.6 million increase in operating cash flows is primarily the result of higher earnings and lower net working capital requirements. While fiscal 2016 net income was $15.4 million lower than fiscal 2017, it included $10.3 million of non-cash losses associated with the Vista business within the Aerostar Division. These losses were due to goodwill and long-lived asset impairments and associated financial impacts net of related tax benefits.

The Company's cash needs have minimal seasonal trends. Net working capital demands tend to be highest in the first quarter. As a result, the discussion of trends in operating cash flows focuses on the primary drivers of year-over-year variability in net working capital. The Company's net working capital for the comparative periods was as follows:

(dollars in thousands)		**January 31, 2017**		January 31, 2016		January 31, 2015
Accounts receivable, net	**$**	**43,143**	$	38,069	$	56,576
Plus: Inventories		**42,336**		45,839		55,152
Less: Accounts payable		**8,467**		6,038		11,545
Net working capital *[a]*	**$**	**77,012**	$	77,870	$	100,183
Net working capital percentage *[b]*		**27.9%**		36.9%		27.9%

[b] Net working capital is defined as accounts receivable (net) plus inventories less accounts payable.

[b] Net working capital percentage is defined as net working capital divided by fourth quarter net sales times four for each of the fiscal years, respectively.

The net working capital percentage decreased from 36.9% at January 31, 2016 to 27.9% at January 31, 2017 primarily as the result of both lower inventory levels and an increase in accounts payable balances due to improvement in the timing of payments to suppliers. These changes in net working capital are the result of management's focus on managing these resources more proactively. To manage levels of inventory during periods of significant change in sales volume, the Company assembled teams within each operating division to manage inventory lower. Similar emphasis was placed on managing accounts payable and to a lesser extent, accounts receivable.

Inventory levels decreased from $55.2 million at January 31, 2015 to $45.8 million at January 31, 2016 driven by focused inventory reduction actions in the Applied Technology and Engineered Films divisions. Inventory levels decreased from $45.8 million at January 31, 2016 to $42.3 million at January 31, 2017 reflecting the ongoing focus on reducing inventory levels as well as the inventory write-downs for certain radar inventory in the third quarter of fiscal 2017.

Accounts receivable levels increased from $38.1 million at January 31, 2016 to $43.1 million at January 31, 2017 due primarily to increased sales volume. Conversely, accounts receivable levels decreased from $56.6 million at January 31, 2015 to $38.1 million at January 31, 2016 in conjunction with the steep decline in sales.

Improvement in the timing of payments to suppliers increased accounts payable $2.5 million year-over-year to $8.5 million at January 31, 2017 from $6.0 million at January 31, 2016. Accounts payable had decreased from $11.5 million at January 31, 2015 to $6.0 million at January 31, 2016 as a result of significantly lower purchasing levels to support the lower sales volume.

Investing Activities
Cash used in investing activities totaled $4.6 million in fiscal 2017 , $11.1 million in fiscal 2016 , and $30.0 million in fiscal 2015 . Capital expenditures totaled $4.8 million in fiscal 2017 compared to $13.0 million in fiscal 2016 and $17.0 million in fiscal 2015. Fiscal 2017 spending primarily relates to maintenance activities. Due to the existing available capacity of the facilities as the result of meaningful capacity additions in prior years and the acquisition of Integra in fiscal 2015, the increase in sales volume did not require capital expenditures for new capacity in fiscal 2017.

Fiscal 2017 benefited from $1.2 million in cash provided by the disposal of assets, most of which related to selling the Company's idle St. Louis, Missouri facility. There was $2.1 million of cash flows from the disposal of assets in fiscal 2016. There were no material cash flows from the disposal of assets in fiscal 2015.

Cash inflow related to business acquisitions in fiscal 2016 relate to the Company receiving a $0.4 million settlement of the working capital adjustment to the Integra purchase price. Cash outflows totaling $12.5 million in fiscal 2015 related to the Integra and SBG business acquisitions. There were no material cash flows from business acquisition activity in fiscal 2017.

Management anticipates capital spending of $10 to $12 million in fiscal 2018. Maintaining Engineered Films' capacity and Applied Technology's capital spending to advance product development are expected to continue. In addition, management will evaluate strategic acquisitions that result in expanded capabilities and improved competitive advantages.

Financing Activities
Financing activities consumed cash of $27.2 million in fiscal 2017 compared with $50.7 million in fiscal 2016 and $30.7 million in fiscal 2015 .

Quarterly dividends paid in fiscal 2017 were $18.8 million , or $0.52 per share, compared to $ 19.4 million , or $0.52 share, in fiscal 2016 and $18.5 million, or $0.50 share, in fiscal 2015 .

In fiscal 2016, the Company began to repurchase common shares as part of the $40.0 million share repurchase plan authorized by the Company’s Board of Directors. In fiscal 2017 first quarter, the Board of Directors authorized a $10.0 million increase, bringing the total authorized under the plan to $50.0 million. The Company paid $7.7 million and $29.3 million for share repurchases in fiscal 2017 and fiscal 2016, respectively. No shares were repurchased during fiscal 2015.

The Company made $0.4 million, $0.8 million, and $0.5 million of acquisition-related contingent liability payments related to the Vista and SBG acquisitions in fiscal 2017, fiscal 2016, and fiscal 2015, respectively.

During fiscal 2016, the Company paid $0.5 million of debt issuance costs associated with the Credit Agreement discussed further in Note 10 *Financing Arrangements* of the Notes to the Consolidated Financial Statements and below. No debt issuance costs were paid during fiscal 2017 or fiscal 2015. No borrowings or repayment have occurred on the Credit Agreement during fiscal 2017 or fiscal 2016. In fiscal 2015, the Company made net debt repayments totaling $12.0 million for debt assumed as part of the Integra and SBG acquisitions.

Financing cash outflows in fiscal 2017 included $0.3 million of employee taxes in relation to the net settlement of restricted stock units (RSUs) that vested during the year. Financing cash outflows in fiscal 2016 included $0.5 million of employee taxes in relation to the net settlement of RSUs that vested during the year. No RSUs vested during fiscal 2015.

Other Liquidity and Capital Resources

The Company entered into a credit facility on April 15, 2015 (Credit Agreement) which provides for a syndicated senior revolving credit facility up to $125.0 million with a maturity date of April 15, 2020. This Credit Agreement, more fully described in Note 10 *Financing Arrangements* of the Notes to the Consolidated Financial Statements, replaced an uncollateralized line of credit of $10.5 million with Wells Fargo Bank, N.A. maturing November 30, 2016.

The Credit Agreement contains customary affirmative and negative covenants, including those relating to financial reporting and notification, limits on levels of indebtedness and liens, investments, mergers and acquisitions, affiliate transactions, sales of assets, restrictive agreements, and change in control as defined in the Credit Agreement. The Company requested and received the necessary covenant waivers relating to its late filing of financial information in fiscal 2017. Financial covenants include an interest coverage ratio and funded indebtedness to earnings before interest, taxes, depreciation, and amortization as defined in the Credit Agreement. The Company is in compliance with all financial covenants set forth in the Credit Agreement.

Letters of credit (LOC) totaling $0.7 million issued under the previous line of credit with Wells Fargo were outstanding at January 31, 2016. These LOC primarily support self-insured workers' compensation bonding. All but one LOC has been transferred and issued under the Credit Agreement as of January 31, 2017. At January 31, 2017, $0.5 million LOCs were outstanding under the Credit Agreement and one $50 thousand LOC issued by Wells Fargo were outstanding.

$124.5 million was available under the Credit Agreement for borrowings as of January 31, 2017. Loan proceeds may be utilized by Raven for strategic business purposes and for net working capital needs. There were no borrowings outstanding for any of the fiscal periods covered by this Form 10-K. There have been no borrowings under credit agreements in the last three fiscal years.

OFF-BALANCE SHEET ARRANGEMENTS AND CONTRACTUAL OBLIGATIONS

As of January 31, 2017 , the Company is obligated to make cash payments in connection with its non-cancelable operating leases for facilities and equipment and unconditional purchase obligations, primarily for raw materials, in the amounts listed below. The Company's known off-balance sheet debt and other unrecorded obligations are noted in the table below.

A summary of the obligations and commitments at January 31, 2017 is shown below.

(dollars in thousands)	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating leases	$ 5,319	$ 1,647	$ 2,484	$ 1,188	$ —
Unconditional purchase obligations	31,976	31,976	—	—	—
Postretirement benefits [(a)]	18,698	362	737	757	16,842
Acquisition-related contingent payments [(b)]	2,657	457	1,596	590	14
Uncertain tax positions [(c)]	—	—	—	—	—
Credit facility [(d)]	699	212	424	63	—
	$ 59,349	$ 34,654	$ 5,241	$ 2,598	$ 16,856

(a) *Postretirement benefit amounts represent expected payments on the accumulated postretirement benefit obligation before it is discounted.*

(b) *Amounts reflect the expected future earn-out payments with respect to business acquisitions. Actual payments on these obligations may vary from the expected amounts since the total payment amount due depends upon certain future conditions. See below for further detail on the specific obligations.*

(c) *See below for further details on specific obligations.*

(d) *Amounts reflect administrative and unborrowed capacity fees under the credit facility described below.*

Acquisition-related obligations

The Company has future obligations for earn-out payments associated with the acquisition of Vista completed in fiscal 2012 and of SBG completed in fiscal 2015. The total liability recorded on the Consolidated Balance Sheet as of January 31, 2017 related to these future obligations was $1.7 million, of which $0.3 million was classified as "Accrued liabilities" and $1.4 million as "Other liabilities." These liabilities represent the present value of earn-out payments classified as consideration at the acquisition date. Specific to the SBG acquisition, the Company may pay up to $2.5 million in additional earn-out payments calculated and paid quarterly over 10 years contingent upon SBG achieving certain revenues. Specific to the Vista acquisition, the Company agreed to pay additional contingent consideration not to exceed $15.0 million, based upon earn-out percentages on specific revenue streams until January 31, 2019. In a transaction separate from the Vista acquisition but related to Vista, the Company agreed to a revenue-based bonus pool, also not to exceed $15.0 million, which will be accrued when the specific revenue stream is recorded using those same earn-out percentages over the same time period.

Uncertain tax positions
Raven reported a total liability for uncertain tax positions of $2.6 million at January 31, 2017. The Company is not able to reasonably estimate the timing of future payments relating to these non-current tax benefits. This obligation is retired when the uncertain tax position is settled or applicable tax year is no longer subject to examination by the tax authorities.

Credit facility
On April 15, 2015 the Company's uncollateralized credit agreement with Wells Fargo providing a line of credit of $10.5 million and maturing on November 30, 2016 was terminated upon the Company's entering into a new credit facility.

This new credit facility, the Credit Agreement dated as of April 15, 2015 among Raven Industries, Inc., JPMorgan Chase Bank, N.A., Toronto Branch as Canadian Administrative Agent, JPMorgan Chase Bank, National Association, as administrative agent, and each lender from time to time party thereto (the Credit Agreement), provides for a syndicated senior revolving credit facility up to $125 .0 million with a maturity date of April 15, 2020 .

Loans or borrowings defined under the Credit Agreement bear interest and fees at varying rates and terms defined in the Credit Agreement based on the type of borrowing as defined. The Credit Agreement includes annual administrative and unborrowed capacity fees of $0.2 million .

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Critical accounting policies are those that require the application of judgment when valuing assets and liabilities on the Company's balance sheet. These policies are discussed below because a fluctuation in actual results versus expected results could materially affect operating results and because the policies require significant judgments and estimates to be made. Accounting related to these policies is initially based on best estimates at the time of original entry in the accounting records. Adjustments are periodically recorded when the Company's actual experience differs from the expected experience underlying the estimates. These adjustments could be material if experience were to change significantly in a short period of time. The Company does not enter into derivatives or other financial instruments for trading or speculative purposes. However, Raven has used derivative financial instruments to manage the economic impact of fluctuations in currency exchange rates on transactions that are denominated in currency other than its functional currency, which is the U.S. dollar. The use of these financial instruments had no material effect on the Company's financial condition, results of operations, or cash flows in fiscal year 2017, 2016, or 2015.

Inventories
The Company estimates inventory valuation each quarter. Typically, when a product reaches the end of its lifecycle, inventory is utilized more slowly or the product has alternative uses. Management uses its manufacturing resources planning data to help determine if inventory is slow-moving or has become obsolete due to an engineering change. The Company closely reviews items that have balances in excess of the forecasted requirements, or that have been dropped from production requirements. Despite these reviews, technological or strategic decisions made by management or the Company's customers may result in unexpected excess material. Further, a decline in the market demand for the Company's products may also result in write-down of inventory balances. The Company assesses current and expected selling prices in determining if inventory balances should be written down to net realizable value. In every Raven operating unit, management must manage obsolete inventory risk. The accounting judgment ultimately made is an evaluation of the success that management will have in controlling inventory risk and mitigating the impact of obsolescence when it does occur.

Due to the Company's decision to no longer actively pursue certain radar opportunities, during the fiscal 2017 third quarter, the Company wrote-down radar inventory, purchased primarily during fiscal 2016. The decision to write-down this inventory is consistent with the triggering event identified during the fiscal 2017 third quarter relating to the Aerostar reporting unit and the radar product and radar services (Radar) asset group as discussed in Note 6 *Goodwill, Long-lived Assets, and Other Charges* and below in the critical accounting estimates for long-lived and intangible assets and goodwill. This radar-specific inventory write-down increased "Cost of sales" by $2.3 million in fiscal 2017.

Pre-Contract Costs
From time to time, the Company incurs costs to begin fulfilling the statement of work under a specific anticipated contract still being negotiated with the customer. If the Company determines that it is probable it will be awarded the specific anticipated contract, the pre-contract costs incurred, excluding start-up costs which are expensed as incurred, are deferred to the balance sheet and included in “Inventories.” Deferred pre-contract costs are periodically reviewed and assessed for recoverability under the contract based on the Company’s assessment of the nature of the costs, the probability and timing of the award, and other relevant facts and circumstances. Write-offs of pre-contract costs are charged to cost of sales when it becomes probable such costs will not be recoverable. As described in Note 6 *Goodwill, Long-lived Assets, and Other Charges* of the Notes to the Consolidated

Financial Statements, pre-contract costs of $2.9 million were written off in fiscal 2016. No pre-contract costs were included in "Inventories" at January 31, 2017, 2016, or 2015.

Warranties
Estimated warranty liability costs are based on historical warranty costs and average time elapsed between purchases and returns for each business segment. Warranty issues that are unusual in nature are accrued for individually.

Allowance for Doubtful Accounts
Determining the level of the allowance for doubtful accounts requires management's best estimate of the amount of probable credit losses based on historical write-off experience by segment and an estimate of the ability to collect any past due accounts. Factors that are considered beyond historical experience include the length of time the receivables are outstanding, the current business climate, and the customer's current financial condition. Accounts receivable and any related allowance are written off after all collection efforts have been exhausted.

Revenue Recognition
Estimated returns or sales allowances are recognized upon shipment of a product. The Company sells directly to customers or distributors that incur the expense and commitment for any post-sale obligations beyond stated warranty terms.

For certain service-related contracts, the Company recognizes revenue under the percentage-of-completion method of accounting, whereby contract revenues are recognized on a pro-rata basis based upon the ratio of costs incurred compared to total estimated contract costs. Contract costs include labor, material, subcontracting costs, as well as allocation of indirect costs. Revenues, including estimated profits, are recorded as costs are incurred. Losses estimated to be incurred upon completion of contracts are charged to operations when they become known.

Certain contracts contain provisions for incentive payments that the Company may receive based on performance criteria related to product design, development and production standards. Revenue related to the incentive payments is recognized when ultimate realization by the Company is assured, which generally occurs when the provisions and performance criteria required by the contract are met.

Long-lived and Intangible Assets and Goodwill
For long-lived assets, including definite-lived intangibles, equity investments, and property plant and equipment, management tests for recoverability whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. Management periodically assesses for triggering events and discusses any significant changes in the utilization of long-lived assets, which may result from, but are not limited to, an adverse change in the asset's physical condition or a significant adverse change in the business climate. For purposes of recognition and measurement of an impairment loss, a long-lived asset is grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. An impairment loss is recognized when the carrying amount of an asset exceeds the estimated undiscounted cash flows used in determining its fair value. The cash flows used for this analysis are similar to those used in the goodwill impairment assessment discussed further below. Such valuations are derived from valuation techniques in which one or more significant inputs are not observable (Level 3 fair value measures).

The Company recognizes goodwill as the excess cost of an acquired business over the net amount assigned to assets acquired and liabilities assumed. Management assesses goodwill for impairment annually during the fourth quarter and between annual tests whenever a triggering event indicates there may be an impairment. When performing goodwill impairment testing, the fair values of reporting units are determined based on valuation techniques using the best available information, primarily discounted cash flow projections. Such valuations are derived from valuation techniques in which one or more significant inputs are not observable (Level 3 fair value measures).

The Company performs impairment reviews of goodwill by reporting unit. Through fiscal 2016, the Company determined it had four reporting units: Engineered Films Division; Applied Technology Division; and two separate reporting units in the Aerostar Division, one of which was Vista and one of which was all other Aerostar operations.

During the first quarter of fiscal 2017, management implemented managerial and financial reporting changes within Vista and Aerostar to further integrate Vista into the Aerostar Division. Integration actions included leadership re-alignment, including selling and business development functions, re-deployment of employees across the division, and consolidation of administrative functions, among other actions. Based on the changes made, the Company consolidated the two separate reporting units within the Aerostar Division into one reporting unit for the purposes of goodwill impairment review. As such as of April 30, 2016, the Company has three reporting units: Engineered Films Division, Applied Technology Division, and Aerostar Division. The Company determined there was not a change in the long-lived asset groups as a result of the reporting unit changes.

Goodwill
In step one of the goodwill impairment analysis (Step 1), the fair value of each reporting unit is determined using a discounted cash flow analysis. Projecting discounted future cash flows requires the Company to make significant estimates and assumptions regarding future revenues and expenses, projected capital expenditures, changes in net working capital, and the appropriate discount rate.

In developing the discounted cash flow analysis, assumptions about the revenue growth rate, operating profit margin percentage, capital expenditures, and changes in net working capital reference our annual operating plan and long-term strategic plan for each of the Company's reporting units, but also reflect the best available information at that time and as appropriate, reflect market participant assumptions if such amounts might differ from the Company-specific assumptions for each of the Company's reporting units.

Discount rate assumptions for each reporting unit are the value-weighted average of the Company's estimated cost of capital derived using both known and estimated customary market metrics and take into consideration management's assessment of risks inherent in the future cash flows of the respective reporting unit. One of the metrics considered by the Company in its selection of a discount rate is the relevant small company size premium appropriate to the reporting unit for which the valuation is being assessed. Generally, the lower the revenues associated with a reporting unit, the higher the small company premium and the higher the discount rate for that reporting unit. With other factors such as the optimal capital structure assumed for the reporting unit, this may result in a different discount rate assumption for each reporting unit being evaluated and may result in the discount rate for a reporting unit varying from year to year.

The estimated fair value of the reporting unit is then compared with the book value of its net assets. If the estimated fair value of the reporting unit is less than the book value of the net assets of the reporting unit, an impairment loss is possible and a more refined measurement of the impairment loss takes place. This is the second step of the goodwill impairment testing (Step 2), in which management may use market comparisons and recent transactions to assign the fair value of the reporting unit to all of the assets and liabilities of that unit. The valuation methodologies in both steps of goodwill impairment testing use significant estimates and assumptions. Management evaluates the merits of each significant assumption and the overall basket of assumptions used to determine the fair value of the reporting unit.

During fiscal 2017, there were no triggering events with respect to the Applied Technology or Engineered Films reporting units. Based on the Company's annual impairment assessment (Step 0) for the Applied Technology reporting unit, no Step 1 or Step 2 analyses were determined to be necessary. As discussed below, the Company determined that there was a triggering event with respect to the Aerostar reporting unit in the third quarter, which resulted in a goodwill impairment test. The Company also completed a Step 1 analysis during the annual goodwill impairment process on the Engineered Films and Aerostar reporting units.

In fiscal 2016, the Company determined that there were triggering events with respect to the Engineered Films reporting unit in the second quarter and the Vista reporting unit in the third quarter, each of which resulted in goodwill impairment tests. The Engineered Films estimated fair value exceeded the carrying value of the reporting unit's net assets. However, the results of the Vista reporting unit Step 1 goodwill impairment testing as of October 31, 2015 indicated that the fair value of the Vista reporting unit was below its carrying value. Accordingly, the Company performed the Step 2 test and concluded the goodwill of the Vista reporting unit was impaired. As a result, the Company recorded a non-cash goodwill impairment charge of $11.5 million in the third quarter of fiscal 2016 as "Goodwill impairment loss" in the Consolidated Statements of Income and Comprehensive Income.

Long-lived and Intangible Assets
In Step 1 of the long-lived and intangible asset impairment analysis, the book value of the asset is compared to the undiscounted cash flows supporting the value of the asset. Projecting undiscounted future cash flows requires the Company to make significant estimates and assumptions regarding future revenues and expenses, projected capital expenditures, changes in net working capital, and allocations of certain costs.

In developing the undiscounted cash flow analysis, assumptions about the revenue growth rate, operating profit margin percentage, capital expenditures, and changes in net working capital reference our annual operating plan and long-term strategic plan, but also reflect the best available information at that time, and as appropriate, reflect market participant assumptions if such amounts might differ from the Company-specific assumptions for each of the Company's asset groups. In addition, certain reporting unit costs which are not specific to an asset group are allocated between asset groups to estimate undiscounted cash flows at the asset group level.

If the estimated undiscounted cash flows for the asset group exceed the book value of the asset, there is no impairment. If the estimated undiscounted cash flows for the asset group are below the book value of the asset, an impairment loss is possible and a more refined measurement of the impairment loss would take place. This is the Step 2 of the long-lived and intangible asset impairment analysis in which management compares the discounted value of the cash flows of the asset group to the book value of the asset. The difference between the book value of the asset and the present value of the discounted cash flows supporting the asset group determines the amount of the asset impairment. The discount rate for the Step 2 analysis is derived in a similar manner as the discount rate used for goodwill impairment testing. The valuation methodologies in both steps of long-lived and intangible asset impairment testing use significant estimates and assumptions. Management evaluates the merits of each significant assumption and the overall basket of assumptions used to determine the fair value of the asset.

In fiscal 2017, as discussed below, the Company determined that there were triggering events with respect to the assets associated with the Lighter than Air (aerostat and stratospheric balloon programs) and Radar asset groups in the Aerostar reporting unit in the third quarter, which resulted in an asset impairment test. The asset impairment test with respect to the Radar asset group resulted in a long-lived asset impairment in the third quarter of fiscal 2017 in addition to the impairments recorded in fiscal 2016 for the Radar asset group.

During fiscal 2016, the Company determined that there were triggering events with respect to the Engineered Films asset group in the second quarter and the client private business (CP) and Radar asset groups in the Vista reporting unit in the third quarter, each of which resulted in an asset impairment test. The undiscounted cash flows for the Engineered Films asset group exceeded the carrying value of the long-lived assets by more than $100 million, or approximately 800%, and no Step 2 was deemed to be necessary based on the recoverability of the long-lived assets.

For the two asset groups associated with the Vista reporting unit (CP and Radar), using the sum of the undiscounted cash flows associated with each of the asset groups, a Step 1 test was performed for each asset group. The undiscounted cash flows for the CP asset group exceeded the carrying value of the long-lived assets and no Step 2 test was deemed to be necessary based on the recoverability of the long-lived assets. For the Radar asset group, however, the undiscounted cash flows did not exceed the carrying value of the long-lived assets and the Company performed a Step 2 impairment analysis for the long-lived assets. In the Step 2 impairment analysis, the fair value determined was allocated to the assets and liabilities of the Radar asset group. The resulting implied fair value of the Radar asset group long-lived assets was $0.1 million compared to the carrying value of $3.9 million for the asset group. The shortfall of $3.8 million was recorded in the fiscal 2016 third quarter as an impairment charge to operating income reported as "Long-lived asset impairment loss" in the Consolidated Statements of Income and Comprehensive Income. Of the total long-lived asset impairment of $3.8 million, $3.2 million was related to amortizable intangible assets related to radar technology and radar customers, $0.5 million was related to property, plant, and equipment, and $0.1 million was related to patents.

Aerostar

Triggering Event
In the fiscal 2017 third quarter the Company determined that a triggering event occurred for its Aerostar reporting unit. The triggering event was caused by lowering the financial expectations for net sales and operating income of the reporting unit and asset groups due to delays and uncertainties regarding the reporting unit’s pursuit of certain opportunities, including aerostat orders, certain stratospheric balloon pursuits, and radar pursuits. Aerostar is still actively pursuing these opportunities and some are in active negotiations, but the likelihood of radar sales was lowered and the timing of certain aerostat and classified stratospheric balloon opportunities was delayed more than previously expected.

In the assessment, management evaluated the asset groups for completion of Step 1 of the long-lived asset impairment analysis.

Using the sum of the undiscounted cash flows associated with each of the two asset groups, a Step 1 test was performed for each asset group. The undiscounted cash flows for the Lighter than Air asset group exceeded the carrying value of the long-lived assets by approximately $110 million , or 800% , and no Step 2 test was deemed to be necessary based on the recoverability of the long-lived assets. For the Radar asset group, however, the undiscounted cash flows did not exceed the carrying value of the long-lived assets and the Company performed a Step 2 impairment analysis for the long-lived assets.

In the Step 2 impairment analysis, the fair value determined was allocated to the assets and liabilities of the Radar asset group. The resulting estimated fair value of the Radar asset group long-lived assets was $0.1 million compared to the carrying value of $0.2 million for the asset group. The shortfall of $0.1 million was recorded in the third quarter as an impairment charge to operating income reported as "Long-lived asset impairment loss" in the Consolidated Statements of Income and Comprehensive Income. The total impairment loss related to property, plant, and equipment, and patents.

The most significant assumptions used to determine the undiscounted cash flows of the Aerostar asset groups include: revenue growth rate (particularly revenue related to the continued development of a classified stratospheric balloon pursuit and likelihood of success in being awarded the contract, and the timing thereof), and operating profit margin percentage. These assumptions are consistent with the assumptions used in determining the fair value of the Aerostar reporting unit, which is described below.

Subsequent to the impairment determination for long-lived assets, the Company compared the carrying value of the reporting unit, including goodwill, to its estimated fair value. In calculating the estimated fair value, the Company used the income approach. The income approach is a valuation technique under which the Company estimated future cash flows using the reporting unit's financial forecast from the perspective of an unrelated market participant. Using historical trending and internal forecasting techniques, the Company projected revenues and applied projected gross margins and operating expense ratios to the projected revenue to arrive at the future cash flows. A terminal value was then applied to the projected cash flow stream. Future estimated cash flows were discounted to their present value to calculate the estimated fair value. The discount rate used was the Company’s estimated weighted average cost of capital derived using both known and estimated customary market metrics consistent with the Company's previously outlined approach. The estimated fair value was also compared to comparable market information for reasonableness.

The reporting unit's fair value was estimated based on discounted cash flows and that fair value amount was compared to the carrying value of the reporting unit. This analysis indicated that the third quarter estimated fair value of the Aerostar reporting unit exceeded the net book value by approximately $9 million , or approximately 30% . Therefore, no Step 2 analysis was required.

The most significant assumptions used to determine the fair value of the Aerostar reporting unit include: revenue growth rate (particularly revenue related to the continued development of Project Loon and likelihood of contract-based revenues, and the timing thereof), operating profit margin percentage, and the discount rate.

For the third quarter testing, ten-year revenue expectations were built using a bottom-up approach for each of Aerostar's markets that are contract-based businesses to determine the project and timing of award status. Another key revenue growth driver for Aerostar relates to the growth of stratospheric balloons and new classified business related to stratospheric balloon projects. The resulting compound annual growth rate (CAGR) for net sales for the first 5 years (fiscal 2018-2022) of the forecast was approximately (10%) while the CAGR for net sales for years 6 through 10 (fiscal 2023-2027) of the forecast was approximately 4%. The historical CAGR was approximately 1% from fiscal 2011 through fiscal 2016 (excluding the impact of contract manufacturing). The forecasted growth is heavily influenced by the timing of aerostat contracts and new classified stratospheric balloon opportunities. In addition, sales to Google for Project Loon are expected to increase over the first 5 years of the forecast period. Growth in radar based revenues are constant at 3% over the forecast period. The perpetual growth factor selected was 3%, in line with long-term average GDP and market growth rates. Using the revenue growth rate to illustrate the sensitivity on this estimated fair value, a one-half percentage decrease in the average revenue growth rate over the 10-year forecast period (and the terminal growth rate in perpetuity) would have reduced the third quarter estimated fair value of the Aerostar reporting unit by approximately $3 million.

Operating profit margin assumptions for the forecast period for fiscal years 2018 - 2027 averaged approximately 10% of sales. This compares to an average operating margin of approximately 4% of sales during fiscal years 2013-2017. The forecasted operating profit margin is higher than the historical average referenced primarily due to the impairment of long-lived assets in the third quarter of fiscal year 2016. This impairment of amortizable intangibles and property, plant, and equipment significantly reduced depreciation and amortization expense in the forecast period. In addition, cost reductions executed during fiscal year 2017 are expected to benefit future periods and benefit operating margins in the forecast years. Using the operating profit margin to illustrate the sensitivity on this estimated fair value, a one-half percentage decrease in average operating profit margin over the forecast period would have reduced the third quarter estimated fair value of the Aerostar reporting unit by approximately $2 million.

The discount rate used in the determination of the fair value was 14.0%. Using the discount rate to illustrate the sensitivity on this estimated fair value, a one-half percentage point increase in the discount rate would have reduced the third quarter estimated fair value of the Aerostar reporting unit by approximately $1.5 million.

Annual Impairment Test

The Company completed its regular annual goodwill impairment testing in the fourth quarter for the Aerostar reporting unit based on November 30, 2016 information.

There were no significant changes in market conditions, revenue growth projections (particularly revenue related to the continued development of Project Loon and other contract-based revenues), expected operating profit margin percentage, or capital expenditure assumptions for the Aerostar reporting unit compared to the third quarter analysis. The discount rate used in the determination of the fair value was 14.0%, consistent with the third quarter analysis. As such, the Step 1 analysis completed as of November 30, 2016 indicated that the estimated fair value of the Aerostar reporting unit exceeded the net book value by the same amount as the third quarter testing, approximately $9 million, or 30%.

Aerostar's results for the last two months of fiscal 2017 subsequent to November 30, the date of the annual impairment analysis, were substantially consistent with the forecast and no new impairment indicators or triggering events were noted in the fiscal 2017 fourth quarter.

Engineered Films

Annual Impairment Test
The Company completed its annual Step 1 analysis for the Engineered Films reporting unit based on November 30, 2016 information. This analysis indicated that the estimated fair value of the Engineered Films reporting unit exceeded the net book value by approximately $105 million, or 90%. Therefore, no Step 2 analysis was done.

The most significant assumptions used to determine the fair value of the Engineered Films reporting unit include: revenue growth rate (including assumptions regarding economic conditions, particularly those related to the geomembrane and industrial markets served by the division), operating profit margin percentage, capital expenditures (particularly those impacting changes in capacity), and the discount rate.

For the Step 1 goodwill analysis performed, ten-year revenue expectations were built using a bottom-up approach for each market served focusing primarily on current product pipelines and new product developments, customer changes, market conditions and drivers, and production capacity. Regarding the revenue growth assumptions, geomembrane market revenues were of particular focus due to previous year weak end-market demand and improvement in fiscal 2017. The Company estimated the geomembrane market would achieve a modest rebound in demand relative to historical highs during the middle of the 10-year forecast. The resulting CAGR for net sales for the first 5 years (fiscal 2018-2022) of the forecast was approximately 5% while the CAGR for net sales for years 6 through 10 (fiscal 2023-2027) of the forecast was approximately 3%. The 4-year historical CAGR was approximately 6% from fiscal 2013 through fiscal 2017. The perpetual growth factor selected was 3.0%, in line with average long-term GDP and market growth rates. Using the revenue growth rate to illustrate the sensitivity on this estimated fair value, a one-half percentage decrease in the average revenue growth rate over the 10-year forecast period (and the terminal growth rate in perpetuity) would have reduced the estimated fair value of the Engineered Films reporting unit by approximately $5 million.

The operating profit margin percentage assumption for the forecast period averaged approximately 13% of sales. This compares to an average operating profit margin percentage of approximately 10% of sales during fiscal years 2014-2017. The expansion in operating profit margin during the forecast period is based on the Company’s expectation of the product sales mix and overall higher capacity utilization and is also in-line with the profitability achieved in fiscal year 2017. Higher-value products, higher margins on such products, and leverage of fixed costs at higher production levels are expected to sustain operating margins at levels commensurate with fiscal year 2017. Using the operating profit margin percentage to illustrate the sensitivity on this estimated fair value, a one-half percentage decrease in average operating profit margin percentage over the forecast period would have reduced the second quarter estimated fair value of the Engineered Films reporting unit by approximately $8 million.

Capital expenditures are a significant input to the valuation of the Engineered Films reporting unit because of a recurring pattern of maintenance spending and spending for capacity increases. Typically, new capacity expansion occurs every three to four years. As a result of the Integra acquisition in fiscal 2015 and the completion of a production line in fiscal 2016 at a cost of approximately $12 million, Engineered Films currently has excess capacity and will continue to have excess capacity for some time. Engineered Films' average annual capital expenditures were approximately $7 million for fiscal years 2014 through fiscal 2017. The average annual capital expenditure amount used in the fair value model for the Engineered Films reporting unit was $6 million for the next ten years. Using capital expenditures to illustrate the sensitivity on this estimated fair value, each additional $1.0 million in average capital expenditures over the forecast period would have reduced the estimated fair value of the Engineered Films reporting unit by approximately $3 million.

The discount rate used in the determination of the fair value was 11.0%. Using the discount rate to illustrate the sensitivity on this estimated fair value, a one-half percentage point increase in the discount rate would have reduced the estimated fair value of the Engineered Films reporting unit by approximately $13 million.

Engineered Film's results for the last two months of fiscal 2017 subsequent to November 30, the date of the annual impairment analysis, were substantially consistent with the forecast and no impairment indicators were noted in the fiscal fourth quarter.

Acquisition-Related Contingent Consideration
Acquisition-related contingent consideration represents an obligation of the Company to transfer additional assets or equity interests if specified future events occur or conditions are met. This contingency is accounted for at fair value either as a liability or equity depending on the terms of the acquisition agreement. The Company determines the estimated fair value of contingent consideration as of the acquisition date, and subsequently at the end of each reporting period. In doing so, the Company makes significant estimates and assumptions regarding future events or conditions being achieved under the subject contingent agreement as well as the appropriate discount rate to apply. Such valuation techniques include one or more significant inputs that are not observable.

Uncertain Tax Positions
Accounting for tax positions requires judgments, including estimating reserves for uncertainties associated with the interpretation of income tax laws and regulations and the resolution of tax positions with tax authorities after discussions and negotiations. The ultimate outcome of these matters could result in material favorable or unfavorable adjustments to the consolidated financial statements.

ACCOUNTING PRONOUNCEMENTS

See Note 1 *Summary of Significant Accounting Policies* of the Notes to the Consolidated Financial Statements included in Item 8 of this Form 10-K for a summary of recent accounting pronouncements.

FORWARD-LOOKING STATEMENTS

Certain statements contained in this report are “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding the expectations, beliefs, intentions or strategies regarding the future, not past or historical events. Without limiting the foregoing, the words "anticipates," "believes," "expects," "intends," "may," "plans," "should," "estimate," "would," "will," "potential," and similar expressions are intended to identify forward-looking statements. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking. The Company intends that all forward-looking statements be subject to the safe harbor provisions of the Private Securities Litigation Reform Act.

Although the Company believes that the expectations reflected in such forward-looking statements are based on reasonable assumptions when made, there is no assurance that such assumptions are correct or that these expectations will be achieved. Assumptions involve important risks and uncertainties that could significantly affect results in the future. These risks and uncertainties include, but are not limited to, those relating to weather conditions and commodity prices, which could affect sales and profitability in some of the Company's primary markets, such as agriculture and construction and oil and gas drilling; or changes in competition, raw material availability, technology or relationships with the Company's largest customers, risks and uncertainties relating to development of new technologies to satisfy customer requirements, possible development of competitive technologies, risks of litigation, ability to scale production of new products without negatively impacting quality and cost, risks of operating in foreign markets, risks relating to acquisitions, including risks of integration or unanticipated liabilities or contingencies, and ability to finance investment and net working capital needs for new development projects, any of which could adversely impact any of the Company's product lines, as well as other risks described in Item 1A., Risk Factors, of this Annual Report on Form 10-K. The foregoing list is not exhaustive and the Company disclaims any obligation to subsequently revise any forward-looking statements to reflect events or circumstances after the date of such statements. Past financial performance may not be a reliable indicator of future performance and historical trends should not be used to anticipate results or trends in future periods.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The exposure to market risks pertains mainly to changes in interest rates on cash and cash equivalents and short-term investments. The Company has no debt outstanding as of January 31, 2017. The Company does not expect operating results or cash flows to be significantly affected by changes in interest rates.

The Company's subsidiaries that operate outside the United States use their local currency as the functional currency. The functional currency is translated into U.S. dollars for balance sheet accounts using the period-end exchange rates, and average exchange rates for the statement of income. Cash and cash equivalents held in foreign currency (primarily Euros and Canadian dollars) totaled $2.3 million, $1.6 million, and $2.0 million at January 31, 2017, 2016, and 2015, respectively. Adjustments resulting from financial statement translations are included as cumulative translation adjustments in "Accumulated other comprehensive income (loss)" within shareholders' equity. Foreign currency transaction gains or losses are recognized in the period incurred and are included in "Other (expense), net" in the Consolidated Statements of Income and Comprehensive Income. Foreign currency fluctuations had no material effect on the Company's financial condition, results of operations, or cash flows.

The Company does not enter into derivatives or other financial instruments for trading or speculative purposes. However, the Company does utilize derivative financial instruments to manage the economic impact of fluctuation in foreign currency exchange rates on those transactions that are denominated in currency other than its functional currency, which is the U.S. dollar. Such transactions are principally Canadian dollar-denominated transactions. The use of these financial instruments had no material effect on the Company's financial condition, results of operations, or cash flows.

ITEM 8.   FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Financial Statements

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) of the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting is 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.

Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our 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.

Management has assessed effectiveness of the Company's internal control over financial reporting as of January 31, 2017 using the criteria described in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

As a result of this assessment, management identified the following control deficiencies:

- The Company’s controls relating to the response to the risks of material misstatement were not effectively designed and constituted a material weakness that contributed to the following additional material weaknesses.
- The Company’s controls over the accounting for goodwill and long-lived assets, including finite-lived intangible assets, were not effectively designed and maintained, specifically, the controls related to the identification of the proper unit of account as well as the development and review of assumptions used in interim and annual impairment tests. This control deficiency resulted in the restatement of the Company’s financial statements for the three- and nine-month periods ended October 31, 2015, the fiscal year ended January 31, 2016, and the three-month period ended April 30, 2016.
- The Company’s controls related to the accounting for income taxes were not effectively designed and maintained, specifically the controls to assess that the income tax provision and related tax assets and liabilities are complete and accurate. This control deficiency resulted in adjustments to the income tax provision and related tax asset and liability accounts and related disclosures for the three- and nine-month periods ended October 31, 2015, the fiscal year ended January 31, 2016, and the three-month period ended April 30, 2016.
- The Company’s controls over the existence of inventories were not effectively designed and maintained. Specifically, the controls to monitor that inventory subject to the cycle count program was counted at the frequency levels and accuracy rates required under the Company’s policy, and the controls to verify the existence of inventory held at third-party locations were not effectively designed and maintained. These control deficiencies resulted in adjustments to inventory and cost of sales accounts and disclosures for the three and nine months ended October 31, 2015, the fiscal year ended January 31, 2016, and the three months ended April 30, 2016.
- The Company’s controls over the completeness and accuracy of spreadsheets and system-generated reports used in internal control over financial reporting were not effectively designed and maintained.

Additionally, these control deficiencies could result in additional misstatements of account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected. Accordingly, our management has determined that these control deficiencies constitute material weaknesses.

A material weakness is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim consolidated financial statements will not be prevented or detected on a timely basis. Because of these material weaknesses, our management concluded that the Company did not maintain effective internal control over financial reporting as of January 31, 2017.

The effectiveness of our internal control over financial reporting as of January 31, 2017 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which appears on the next page.

/s/ DANIEL A. RYKHUS	/s/ STEVEN E. BRAZONES
Daniel A. Rykhus	Steven E. Brazones
President and Chief Executive Officer	Vice President and Chief Financial Officer

March 31, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Raven Industries, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income and comprehensive income, of shareholders' equity and of cash flows present fairly, in all material respects, the financial position of Raven Industries, Inc. and its subsidiaries as of January 31, 2017, 2016, and 2015 and the results of their operations and their cash flows for each of the three years in the period ended January 31, 2017 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of January 31, 2017, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) because material weaknesses in internal control over financial reporting existed as of that date related to (i) the response to the risks of material misstatement, (ii) the accounting for goodwill and long-lived assets, including finite-lived intangible assets, (iii) the accounting for income taxes, (iv) the controls over the existence of inventories subject to the cycle count program and held at third party locations, and (v) the completeness and accuracy of spreadsheets and system-generated reports used in internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weaknesses referred to above are described in Management's Report on Internal Control Over Financial Reporting appearing under Item 8. We considered these material weaknesses in determining the nature, timing, and extent of audit tests applied in our audit of the 2017 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements. The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in management's report referred to above. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for the presentation and classification of deferred taxes in 2017.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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/ PricewaterhouseCoopers LLP

Minneapolis, Minnesota
March 31, 2017

CONSOLIDATED BALANCE SHEETS

(Dollars and shares in thousands, except per-share amounts)

	As of January 31,		
	2017	2016	2015
ASSETS			
Current assets			
Cash and cash equivalents	**$ 50,648**	$ 33,782	$ 51,949
Short-term investments	**—**	—	250
Accounts receivable, net	**43,143**	38,069	56,576
Inventories	**42,336**	45,839	55,152
Deferred income taxes	**—**	3,110	3,958
Other current assets	**2,689**	4,429	3,094
Total current assets	**138,816**	125,229	170,979
Property, plant and equipment, net	**106,324**	115,704	117,513
Goodwill	**40,649**	40,672	52,148
Amortizable intangible assets, net	**12,048**	12,956	18,490
Other assets	**3,672**	4,127	3,743
TOTAL ASSETS	**$ 301,509**	$ 298,688	$ 362,873
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities			
Accounts payable	**$ 8,467**	$ 6,038	$ 11,545
Accrued liabilities	**18,055**	12,042	19,187
Customer advances	**1,860**	739	1,111
Total current liabilities	**28,382**	18,819	31,843
Other liabilities	**13,696**	15,640	25,793
Commitments and contingencies			
Shareholders' equity			
Common stock, $1 par value, authorized shares 100,000; issued 67,060; 67,006; and 66,947, respectively	**67,060**	67,006	66,947
Paid-in capital	**55,795**	53,907	53,237
Retained earnings	**230,649**	229,443	244,180
Accumulated other comprehensive loss	**(3,676)**	(3,501)	(5,849)
Less treasury stock at cost, 30,984; 30,500; and 28,897 shares, respectively	**(90,402)**	(82,700)	(53,362)
Total Raven Industries, Inc. shareholders' equity	**259,426**	264,155	305,153
Noncontrolling interest	**5**	74	84
Total shareholders' equity	**259,431**	264,229	305,237
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**$ 301,509**	$ 298,688	$ 362,873

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

CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

(Dollars in thousands, except per-share amounts)

	For the years ended January 31,		
	2017	2016	2015
Net sales	**$ 277,395**	$ 258,229	$ 378,153
Cost of sales	**199,205**	191,255	274,907
Gross profit	**78,190**	66,974	103,246
Research and development expenses	**16,312**	14,686	17,440
Selling, general and administrative expenses	**33,378**	32,574	42,005
Goodwill impairment loss	**—**	11,497	—
Long-lived asset impairment loss	**87**	3,826	—
Operating income	**28,413**	4,391	43,801
Other (expense), net	**(560)**	(310)	(300)
Income before income taxes	**27,853**	4,081	43,501
Income tax expense (benefit)	**7,661**	(767)	11,705
Net income	**20,192**	4,848	31,796
Net income attributable to the noncontrolling interest	**1**	72	63
Net income attributable to Raven Industries, Inc.	**$ 20,191**	$ 4,776	$ 31,733
Net income per common share:			
— Basic	**$ 0.56**	$ 0.13	$ 0.86
— Diluted	**$ 0.56**	$ 0.13	$ 0.86
Comprehensive income:			
Net income	**$ 20,192**	$ 4,848	$ 31,796
Other comprehensive income (loss), net of tax:			
Foreign currency translation	**50**	(729)	(1,466)
Postretirement benefits, net of income tax benefit (expense) of $129, ($1,620), and $1,187, respectively	**(225)**	3,077	(2,204)
Other comprehensive (loss) income, net of tax	**(175)**	2,348	(3,670)
Comprehensive income	**20,017**	7,196	28,126
Comprehensive income attributable to noncontrolling interest	**1**	72	63
Comprehensive income attributable to Raven Industries, Inc.	**$ 20,016**	$ 7,124	$ 28,063

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

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(Dollars and shares in thousands, except per-share amounts)

	$1 Par Common Stock	Paid-in Capital	Treasury Stock Shares	Treasury Stock Cost	Retained Earnings	Accumulated Other Comprehen-sive Income (Loss)	Raven Industries, Inc. Equity	Non-controlling Interest	Total Equity
Balance January 31, 2014	$ 65,318	$ 10,556	28,897	$ (53,362)	$ 231,029	$ (2,179)	$ 251,362	$ 100	251,462
Net income	—	—	—	—	31,733	—	31,733	63	31,796
Other comprehensive income (loss), net of income tax	—	—	—	—	—	(3,670)	(3,670)	—	(3,670)
Cash dividends ($0.50 per share)	—	142	—	—	(18,582)	—	(18,440)	—	(18,440)
Dividends of less than wholly-owned subsidiary paid to noncontrolling interest	—	—	—	—	—	—	—	(79)	(79)
Shares issued in connection with business combination (net of issuance costs of $38)	1,542	37,672	—	—	—	—	39,214	—	39,214
Director shares issued	18	(18)	—	—	—	—	—	—	—
Shares issued on stock options exercised, net of shares withheld for employee taxes	69	572	—	—	—	—	641	—	641
Share-based compensation	—	4,213	—	—	—	—	4,213	—	4,213
Tax benefit from exercise of stock options	—	100	—	—	—	—	100	—	100
Balance January 31, 2015	66,947	53,237	28,897	(53,362)	244,180	(5,849)	305,153	84	305,237
Net income	—	—	—	—	4,776	—	4,776	72	4,848
Other comprehensive income (loss), net of income tax	—	—	—	—	—	2,348	2,348	—	2,348
Cash dividends ($0.52 per share)	—	169	—	—	(19,513)	—	(19,344)	—	(19,344)
Dividends of less than wholly-owned subsidiary paid to noncontrolling interest	—	—	—	—	—	—	—	(82)	(82)
Share issuance costs related to fiscal 2015 business combination	—	(15)	—	—	—	—	(15)	—	(15)
Shares issued on stock options exercised, net of shares withheld for employee taxes	7	(54)	—	—	—	—	(47)	—	(47)
Shares issued on vesting of stock units, net of shares withheld for employee taxes	52	(510)	—	—	—	—	(458)	—	(458)
Shares repurchased	—	—	1,603	(29,338)	—	—	(29,338)	—	(29,338)
Share-based compensation	—	2,311	—	—	—	—	2,311	—	2,311
Income tax impact related to share-based compensation	—	(1,231)	—	—	—	—	(1,231)	—	(1,231)
Balance January 31, 2016	67,006	53,907	30,500	(82,700)	229,443	(3,501)	264,155	74	264,229
Net income	**—**	**—**	**—**	**—**	**20,191**	**—**	**20,191**	**1**	**20,192**
Other comprehensive income, net of income tax	**—**	**—**	**—**	**—**	**—**	**(175)**	**(175)**	**—**	**(175)**
Cash dividends ($0.52 per share)	**—**	**216**	**—**	**—**	**(18,985)**	**—**	**(18,769)**	**—**	**(18,769)**
Dividends of less than wholly-owned subsidiary paid to noncontrolling interest	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(70)**	**(70)**
Director shares issued	**19**	**(19)**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Shares issued on vesting of stock units, net of shares withheld for employee taxes	**35**	**(291)**	**—**	**—**	**—**	**—**	**(256)**	**—**	**(256)**
Shares repurchased	**—**	**—**	**484**	**(7,702)**	**—**	**—**	**(7,702)**	**—**	**(7,702)**
Share-based compensation	**—**	**3,071**	**—**	**—**	**—**	**—**	**3,071**	**—**	**3,071**
Income tax impact related to share-based compensation	**—**	**(1,089)**	**—**	**—**	**—**	**—**	**(1,089)**	**—**	**(1,089)**
Balance January 31, 2017	**$ 67,060**	**$ 55,795**	**30,984**	**$ (90,402)**	**$ 230,649**	**$ (3,676)**	**$ 259,426**	**$ 5**	**$ 259,431**

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in thousands)

	For the years ended January 31,		
	2017	2016	2015
OPERATING ACTIVITIES:			
Net income	**$ 20,192**	$ 4,848	$ 31,796
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	**13,169**	13,856	14,761
Amortization of intangible assets	**2,267**	3,280	2,608
Goodwill impairment loss	**—**	11,497	—
Long-lived asset impairment loss	**87**	3,826	—
Change in fair value of acquisition-related contingent consideration	**36**	(1,488)	714
Loss (income) from equity investments	**72**	(83)	(28)
Deferred income taxes	**307**	(6,039)	(958)
Share-based compensation expense	**3,071**	2,311	4,213
Other operating activities, net	**2,390**	2,112	(996)
Change in operating assets and liabilities	**7,045**	9,888	7,973
Net cash provided by operating activities	**48,636**	44,008	60,083
INVESTING ACTIVITIES:			
Capital expenditures	**(4,796)**	(13,046)	(17,041)
Proceeds (payments) related to business acquisitions	**—**	351	(12,472)
Maturities of investments	**250**	250	500
Purchases of investments	**(750)**	(250)	(750)
Proceeds from sale of assets	**1,188**	2,124	—
Other investing activities, net	**(534)**	(503)	(223)
Net cash used in investing activities	**(4,642)**	(11,074)	(29,986)
FINANCING ACTIVITIES:			
Dividends paid	**(18,839)**	(19,426)	(18,519)
Payments for common shares repurchased	**(7,702)**	(29,338)	—
Proceeds from revolving line of credit	**—**	—	2,127
Payment of revolving line of credit and acquisition-related debt	**—**	—	(14,116)
Payment of acquisition-related contingent liabilities	**(354)**	(814)	(533)
Debt issuance costs paid	**—**	(548)	—
Restricted stock units vested and issued	**(256)**	(458)	—
Employee stock option exercises net of tax benefit	**—**	(85)	702
Other financing activities, net	**—**	(15)	(326)
Net cash used in financing activities	**(27,151)**	(50,684)	(30,665)
Effect of exchange rate changes on cash	**23**	(417)	(470)
Net increase (decrease) in cash and cash equivalents	**16,866**	(18,167)	(1,038)
Cash and cash equivalents at beginning of year	**33,782**	51,949	52,987
Cash and cash equivalents at end of year	**$ 50,648**	$ 33,782	$ 51,949

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Dollars in thousands, except per-share amounts)

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Principles of Consolidation

Raven Industries, Inc. (the Company or Raven) is a diversified technology company providing a variety of products to customers within the industrial, agricultural, geomembrane (which includes energy), construction, and aerospace/defense markets. The Company conducts this business through the following direct and indirect subsidiaries: Aerostar International, Inc. (Aerostar); Vista Research, Inc. (Vista); Raven International Holding Company BV (Raven Holdings); Raven Industries Canada, Inc. (Raven Canada); SBG Innovatie BV; Navtronics BVBA; Raven Industries GmbH (Raven GmbH); Raven Industries Australia Pty Ltd (Raven Australia) and Raven Do Brazil Participacoes E Servicos Technicos LTDA (Raven Brazil). The Company and these subsidiaries comprise three unique operating units, or divisions, classified into reportable segments (Applied Technology, Engineered Films, and Aerostar).

The consolidated financial statements for the periods included herein have been prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned or controlled subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Noncontrolling Interest

Noncontrolling interests represent capital contributions, income and loss attributable to the owners of less than wholly-owned and consolidated entities. The Company owns 75% of a business venture to pursue potential product and support services contracts for agencies and instrumentalities of the United States government. The business venture, Aerostar Integrated Systems (AIS), is included in the Aerostar business segment. No capital contributions have been made by the noncontrolling interest since the initial capitalization in fiscal year 2014 . Given the Company's majority ownership interest, the accounts of the business venture have been consolidated with the accounts of the Company, and a noncontrolling interest has been recorded for the noncontrolling investor's interests in the net assets and operations of the business venture.

Equity Investments

In February 2016 , the Applied Technology Division acquired an interest of approximately 5% in Ag-Eagle Aerial Systems, Inc. (AgEagle).

AgEagle is considered a variable interest entity (VIE) and the Company’s equity ownership interest in AgEagle is considered a variable interest. The Company accounts for its investment in AgEagle under the equity method of accounting as the Company has the ability to exercise significant influence over the operating policies of AgEagle through the Company's representation on AgEagle's Board of Directors and the exclusive distribution agreement between the companies discussed in Note 5 *Acquisitions of and Investments in Businesses and Technologies* . However, the Company is not the primary beneficiary as the Company does not have the power to direct the activities that most significantly impact the VIE’s economic performance and the obligation to absorb the majority of the losses or the right to receive the majority of the benefits of the VIE.

The Company also owns an interest of approximately 22% in Site-Specific Technology Development Group, Inc. (SST). The Company has significant influence, but neither a controlling interest nor a majority interest in the risks or rewards of SST and as such, this affiliate investment is accounted for using the equity method.

The investment balances for both AgEagle and SST are included in “Other assets” while the Company's share of the results of AgEagle and SST operations is included in “Other (expense), net.”

The Company considers whether the value of any of its equity method investments has been impaired whenever adverse events or changes in circumstances indicate that recorded values may not be recoverable. If the Company considered any such decline to be other than temporary (based on various factors, including historical financial results, product development activities, and the overall health of the affiliate's industry), an impairment loss would be recorded.

Use of Estimates

Preparing the financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make certain estimates and assumptions. These affect the reported amounts of assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company's forecasts, based principally on estimates, are critical inputs to asset valuations such as those for inventory or goodwill. These assumptions and estimates require significant judgment and actual results could differ from assumed and estimated amounts.

Foreign Currency

The Company's subsidiaries that operate outside the United States use the local currency as their functional currency. The functional currency is translated into U.S. dollars for balance sheet accounts using the period-end exchange rates and average exchange rates for the statement of income and comprehensive income. Adjustments resulting from financial statement translations are included as foreign currency translation adjustments in “Accumulated other comprehensive income (loss)” within shareholders' equity. Foreign currency transaction gains or losses are recognized in the period incurred and are included in “Other (expense), net” in the Consolidated Statements of Income and Comprehensive Income. Foreign currency transaction gains or losses on intercompany notes receivable and notes payable denominated in foreign currencies for which settlement is not planned in the foreseeable future are considered part the net investment and are reported in the same manner as foreign currency translation adjustments.

Cash and Cash Equivalents

The Company considers all highly liquid instruments with original maturities of three or fewer months to be cash equivalents. Cash and cash equivalent balances are principally concentrated in checking, money market, and savings accounts. Certificates of deposit that mature in over 90 days but less than one year are considered short-term investments. Certificates of deposit that mature in one year or more are considered to be other long-term assets and are carried at cost.

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount, do not bear interest, and are considered past due based on invoice terms. The allowance for doubtful accounts is the Company’s best estimate of the amount of probable credit losses. This is based on historical write-off experience by segment and an estimate of the collectability of past due accounts. Unbilled receivables arise when revenues have been earned, but not billed, and are related to differences in timing. Unbilled receivables were not material as of January 31, 2017, 2016, or 2015 .

Inventory Valuation

Inventories are carried at the lower of cost or market, with cost determined on the first-in, first-out basis. Market value encompasses consideration of all business factors including expected future sales, price, contract terms, and usefulness.

Pre-Contract Costs

From time to time, the Company incurs costs to begin fulfilling the statement of work under a specific anticipated contract still being negotiated with the customer. If the Company determines that it is probable it will be awarded the specific anticipated contract, the pre-contract costs incurred, excluding start-up costs which are expensed as incurred, are deferred to the balance sheet and included in "Inventories." Deferred pre-contract costs are periodically reviewed and assessed for recoverability under the contract based on the Company’s assessment of the nature of the costs, the probability and timing of the award, and other relevant facts and circumstances. Write-offs of pre-contract costs are charged to cost of sales when it becomes probable that such costs will not be recoverable. No pre-contract costs were included in "Inventories" at January 31, 2017, 2016, or 2015.

Property, Plant and Equipment

Property, plant and equipment held for use is carried at the asset's cost and depreciated over the estimated useful life of the asset. With the prospective adoption of the straight-line method of depreciation for manufacturing equipment, office equipment, and furniture and fixtures placed in service on or after February 1, 2015, the Company no longer primarily uses accelerated methods of computing depreciation. This change was made as a straight-line method of depreciation more accurately reflects the economic consumption of these assets than did the accelerated method previously used. This prospective change in the depreciation method did not have a material effect on the Company’s financial position or results of operations for the fiscal years ended January 31, 2017 or 2016.

The estimated useful lives used for computing depreciation are as follows:

Building and improvements	15 - 39 years
Manufacturing equipment by segment	
Applied Technology	3 - 5 years
Engineered Films	5 - 12 years
Aerostar	3 - 5 years
Furniture, fixtures, office equipment, and other	3 - 7 years

The cost of maintenance and repairs is charged to expense in the period incurred, and renewals and betterments are capitalized. The cost and related accumulated depreciation of assets sold or disposed are removed from the accounts and the resulting gain or loss is reflected in operations.

The Company capitalizes certain internal costs incurred in connection with developing or obtaining internal-use software in accordance with the accounting guidance for such costs. There were no internal capitalized software costs during fiscal year 2017 , 2016 , or 2015 . The costs are included in “Property, plant and equipment, net” on the Consolidated Balance Sheets. Software costs that do not meet capitalization criteria are expensed as incurred. Amortization expense related to capitalized software is computed on the straight-line basis over the estimated lives ranging from 3 to 5 years and is included in depreciation expense.

Fair Value Measurements
Fair value is defined as an exit price representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. The Company uses the established fair value hierarchy, which classifies or prioritizes the inputs used in measuring fair value. These classifications include:

Level 1 - Observable inputs such as quoted prices in active markets;

Level 2 - Inputs other than quoted prices in active markets that are either directly or indirectly observable; and

Level 3 - Unobservable inputs in which little or no market data exists, therefore, requiring an entity to develop its own assumptions.

The Company's financial assets required to be measured at fair value on a recurring basis include cash and cash equivalents and short-term investments. The Company determines fair value of its cash equivalents and short-term investments through quoted market prices. The fair values of accounts receivable and accounts payable approximate carrying values because of the short-term nature of these instruments.

The Company's goodwill and long-lived assets, including intangible assets subject to amortization, are measured at fair value on a non-recurring basis. These valuations are derived from valuation techniques in which one or more significant inputs are not observable.

For all acquisitions, the Company is required to measure the fair value of the net identifiable tangible and intangible assets acquired. In addition, the Company determines the estimated fair value of contingent consideration as of the acquisition date, and subsequently at the end of each reporting period. These valuations are derived from valuation techniques in which one or more significant inputs are not observable. Fair value measurements associated with acquisitions, including acquisition-related contingent liabilities, are described in Note 5 *Acquisition of and Investments in Businesses and Technologies.*

Intangible Assets
Intangible assets, primarily comprised of technologies acquired through acquisition, are recorded at cost and are presented net of accumulated amortization. Amortization is computed using the method that best approximates the pattern of economic benefits which the asset provides. The Company has used both the straight-line method and the undiscounted cash flows method to appropriately allocate the cost of intangible assets to earnings in each reporting period.

The straight-line method allocates the cost of such intangible assets ratably over the asset’s life. Under the undiscounted cash flow method, the estimated cash flow attributable to each year of an intangible asset’s life is calculated as a percentage of the total of the cash flows over the asset’s life and that percentage is applied to the initial value of the asset to determine the annual amortization to be recorded.

Intangible assets also include patents, trademarks, and other product rights attained to protect the Company’s intellectual property.

The estimated useful lives of the Company’s intangible assets range from 3 to 20 years.

Goodwill
The Company recognizes goodwill as the excess cost of an acquired business over the net amount assigned to assets acquired and liabilities assumed. Acquisition earn-out payments are accrued at fair value as of the purchase date and payments reduce the accrual without affecting goodwill. Any change in the fair value of the contingent consideration after the acquisition date is recognized in "Cost of sales" in the Consolidated Statements of Income and Comprehensive Income.

Goodwill is tested for impairment on an annual basis during the fourth quarter and between annual tests whenever a triggering event indicates there may be an impairment. Impairment tests of goodwill are performed at the reporting unit level. A qualitative impairment assessment over relevant events and circumstances may be assessed to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If events and circumstances indicate the fair value of a reporting unit may be less than its carrying value, then the fair values are estimated based on discounted cash flows and are compared with the corresponding carrying value of the reporting unit. If the fair value of the reporting unit is less than the carrying amount, the amount of the impairment loss must be measured and then recognized to the extent the carrying value of the goodwill exceeds the implied fair value. When performing goodwill impairment testing, the fair values of reporting units are determined based on valuation techniques using the best available information, primarily discounted cash flow projections. Such valuations are derived from valuation techniques in which one or more significant inputs are not observable (Level 3 fair value measures).

Long-Lived Assets
The Company periodically assesses the recoverability of long-lived and intangible assets. An impairment loss is recognized when the carrying amount of an asset group exceeds the estimated undiscounted cash flows used in determining the fair value of the asset group. The amount of the impairment loss to be recorded is the excess of the carrying value of the assets within the group over their fair value. When performing long-lived assets impairment testing, the fair values of assets are determined based on valuation techniques using the best available information. Such valuations are derived from valuation techniques in which one or more significant inputs are not observable (Level 3 fair value measures).

Long-lived assets determined to be held for sale and classified as such in accordance with the applicable guidance are reported as long-term assets at the lower of the asset's carrying amount or fair value less the estimated cost to sell. Depreciation is not recorded once a long-lived asset has been classified as held for sale.

Acquisition-Related Contingent Consideration
Acquisition-related contingent consideration represents an obligation of the Company to transfer additional assets or equity interests if specified future events occur or conditions are met. This contingency is accounted for at fair value either as a liability or equity depending on the terms of the acquisition agreement. The Company determines the estimated fair value of contingent consideration as of the acquisition date, and subsequently at the end of each reporting period. In doing so, the Company makes significant estimates and assumptions regarding future events or conditions being achieved under the subject contingent agreement as well as the appropriate discount rate to apply. Such valuations are derived from valuation techniques in which one or more significant inputs are not observable (Level 3 fair value measures).

Insurance Obligations
The Company utilizes insurance policies to cover workers' compensation and general liability costs. Liabilities are accrued related to claims filed and estimates for claims incurred but not reported. To the extent these obligations are expected to be reimbursed by insurance, the probable insurance policy benefit is included as a component of "Other current assets."

Contingencies
The Company is involved as a defendant in lawsuits, claims, regulatory inquiries, or disputes arising in the normal course of business. While the ultimate settlement of these claims cannot be easily estimated, management believes that any liability resulting from these claims will, in many cases, be substantially covered by insurance. Management does not believe that the ultimate outcome of any pending matters will be material to its results of operations, financial position, or cash flows.

The Company also has contingencies related to potential asset impairments or contingent liabilities. An estimate of the loss on these matters is charged to operations when it is probable that an asset has been impaired or a liability has been incurred, and the amount of the loss can be reasonably estimated. Management does not believe any potential contingent asset impairment or liability will be material to its results of operations, financial position, or cash flows.

Revenue Recognition
The Company recognizes revenue when it is realized or realizable and has been earned. Revenue is recognized when there is persuasive evidence of an arrangement, the sales price is determinable, collectability is reasonably assured, and shipment or

delivery has occurred (depending on the terms of the sale). The Company sells directly to customers or distributors who incur the expense and commitment for any post-sale obligations beyond stated warranty terms. Estimated returns, sales allowances, or warranty charges are recognized upon shipment of a product.

For certain service-related contracts, the Company recognizes revenue under the percentage-of-completion method of accounting, whereby contract revenues are recognized on a pro-rata basis based upon the ratio of costs incurred compared to total estimated contract costs. Contract costs include labor, material, subcontracting costs, as well as an allocation of indirect costs. Revenues including estimated profits are recorded as costs are incurred. Losses estimated to be incurred upon completion of contracts are charged to operations when they become known. Revenues recognized under the percentage-of-completion method of accounting were not material in any of the fiscal years reported in the Consolidated Statements of Income and Comprehensive Income presented in this Annual Report on Form 10-K.

Certain contracts contain provisions for incentive payments that the Company may receive based on performance criteria related to product design, development and production standards. Revenue related to the incentive payments is recognized when ultimate realization by the Company is assured, which generally occurs when the provisions and performance criteria required by the contract are met.

Operating Expenses
The primary types of operating expenses are classified in the income statement as follows:

Cost of sales	Research and development (R&D) expenses	Selling, general, and administrative (SG&A)expenses
Direct material costs	Personnel costs	Personnel costs
Material acquisition and handling costs	Professional service fees	Professional service fees
Direct labor	Material and supplies	Advertising
Factory overhead including depreciation and amortization	Facility allocation	Promotions
		Information technology equipment depreciation
Inventory obsolescence		Office supplies
Product warranties		Facility allocation
Shipping and handling cost		Bad debt expense

The Company's R&D expenditures consist primarily of internal direct and indirect costs associated with development of technologies to support its proprietary product lines in each of its divisions. These R&D costs are expensed as incurred.

General and administrative expenses included in SG&A are not allocated at the segment level. The Company's gross margin and segment operating income may not be comparable to industry peers due to variability in the classification of these expenses across the industries in which the Company operates.

Warranties
Accruals necessary for product warranties are estimated based on historical warranty costs and average time elapsed between purchases and returns for each division. Additional accruals are made for any significant, discrete warranty issues.

Share-Based Compensation
The Company records compensation expense related to its share-based compensation plans using the fair value method. Under this method, the fair value of share-based compensation is determined as of the grant date and the related expense is recorded over the period in which the share-based compensation vests.

Income Taxes
Deferred income taxes reflect future tax effects of temporary differences between the tax and financial reporting basis of the Company's assets and liabilities measured using enacted tax laws and statutory tax rates applicable to the periods when the temporary differences will affect taxable income. When necessary, deferred tax assets are reduced by a valuation allowance to reflect realizable value. Accruals are maintained for uncertain tax positions.

Accounting Pronouncements
Accounting Standards Adopted
In January 2017 the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2017-01 "Business Combinations (Topic 805) - Clarifying the Definition of a Business" (ASU 2017-01). This update clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The amendments provide a screen to determine when a set of assets and activities is not a business. If the screen is not met, the amendments require further consideration of inputs, substantive processes and outputs to determine whether the transaction is an acquisition of a business. The new update is effective for annual periods

beginning after December 15, 2017 with early adoption permitted. The Company early adopted ASU 2017-01 in the fiscal 2017 fourth quarter on a prospective basis with no impact on its consolidated financial statements and associated disclosures.

In November 2015 the FASB issued ASU No. 2015-17, "Income Taxes (Topic 740) Balance Sheet Classification of Deferred Taxes" (ASU 2015-17). Currently GAAP requires the deferred taxes for each jurisdiction (or tax-paying component of a jurisdiction) to be presented as a net current asset or liability and net noncurrent asset or liability. This requires a jurisdiction-by-jurisdiction analysis based on the classification of the assets and liabilities to which the underlying temporary differences relate, or, in the case of loss or credit carryforwards, based on the period in which the attribute is expected to be realized. To simplify presentation, ASU 2015-17 requires that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. As a result, each jurisdiction will now only have one net noncurrent deferred tax asset or liability. The guidance does not change the existing requirement that only permits offsetting within a jurisdiction - that is, companies are still prohibited from offsetting deferred tax liabilities from one jurisdiction against deferred tax assets of another jurisdiction. The new update is effective for annual periods beginning after December 15, 2016 with early adoption permitted. The Company early adopted ASU 2015-17 in the fiscal 2017 first quarter using the prospective method. No current deferred tax assets or liabilities are recorded on the balance sheet. Since the Company adopted the guidance prospectively, the prior periods were not retrospectively adjusted.

In September 2015 the FASB issued ASU No. 2015-16, "Business Combinations (Topic 805) Simplifying the Accounting for Measurement-Period Adjustments" (ASU 2015-16). The amendments in ASU 2015-16 apply to all entities that have reported provisional amounts for items in a business combination for which the accounting is incomplete by the end of the reporting period in which the combination occurs and, during the measurement period, have an adjustment to provisional amounts recognized. ASU 2015-16 requires that an acquirer in a business combination recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. ASU 2015-16 requires that the acquirer record, in the same period's financial statements, the effect on earnings of changes in depreciation, amortization, or other income effects, if any, as a result of the change to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. The amendments in this update require an entity to present separately on the face of the income statement, or disclose in the notes, the portion of the amount recorded in current-period earnings by line item that would have been recorded in previous reporting periods if the adjustment to the provisional amounts had been recognized as of the acquisition date. The Company adopted ASU 2015-16 when it became effective in the fiscal 2017 first quarter with no impact on its consolidated financial statements, results of operations, or associated disclosures.

In April 2015 the FASB issued ASU No. 2015-05, "Intangibles - Goodwill and Other-Internal-Use Software (Subtopic 350-40) Customer's Accounting for Fees Paid in a Cloud Computing Arrangement (CCA)" (ASU 2015-05). The amendments in ASU 2015-05 clarify existing GAAP guidance about a customer's accounting for fees paid in a CCA with or without a software license. Examples of cloud computing arrangements include software as a service, platform as a service, infrastructure as a service, and other similar hosting arrangements. Under ASU 2015-05, fees paid by a customer in a CCA for a software license are within the scope of the internal-use software guidance if certain criteria are met. If the criteria are not met the fees paid are accounted for as a prepaid service contract and expensed. The Company has historically accounted for all fees in a CCA as a prepaid service contract. The Company adopted ASU 2015-05 in first quarter fiscal 2017 when it became effective using the prospective method. The Company did not pay any fees in a CCA in the current period that met the criteria to be in scope of the internal-use software guidance and it had no impact on the consolidated financial statements, results of operations, or associated disclosures.

In February 2015 the FASB issued ASU No. 2015-02, "Consolidation (Topic 810) Amendments to the Consolidation Analysis" (ASU 2015-02). The amendments in ASU 2015-02 affect reporting entities that are required to evaluate whether they should consolidate certain legal entities. All legal entities are subject to reevaluation under the revised consolidation model. Specifically, the amendments: 1. Modify the evaluation of whether limited partnerships and similar legal entities are VIEs or voting interest entities; 2. Eliminate the presumption that a general partner should consolidate a limited partnership; 3. Affect the consolidation analysis of reporting entities that are involved with VIEs, particularly those that have fee arrangements and related party relationships; and 4. Provide a scope exception from consolidation guidance for reporting entities with interests in legal entities that are required to comply with or operate in accordance with requirements that are similar to those in Rule 2a-7 of the Investment Company Act of 1940. In October 2016 the FASB issued ASU 2016-17 "Consolidation (Topic 810) - Interests Held through Related Parties that are under Common Control" (ASU 2016-17) which amended ASU 2015-02. Under ASU 2016-17, the Company only needs to consider its proportionate indirect interest in the VIE held through a common control party when evaluating whether the Company is the primary beneficiary. ASU 2015-02 required that the common control party's interest be treated as if it was the Company's interest when evaluating whether the Company is the primary beneficiary. The Company adopted ASU 2015-02 in first quarter fiscal 2017 when it became effective. ASU 2016-17 is effective for annual periods beginning after December 15, 2016 with early adoption permitted. The Company early adopted ASU 2016-17 in third quarter fiscal 2017 using the retrospective method. The Company reevaluated all of it legal entities and one investment accounted for using the equity method during the first quarter. The Company did not have an indirect interest in any of the entities through an unconsolidated related party. Under ASU 2015-02 and the amended guidance in ASU 2016-17 neither of these equity method investments qualified for consolidation. The adoption of this guidance had no impact on the legal entities consolidated or the Company's consolidated financial statements and associated disclosures. No prior period retrospective adjustments were required.

In January 2015 the FASB issued ASU No. 2015-01, "Income Statement - Extraordinary and Unusual Items (Subtopic 225-20) Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items" (ASU 2015-01). The amendments in ASU 2015-01 eliminate the GAAP concept of extraordinary items and no longer requires that transactions that met the criteria for classification as extraordinary items be separately classified and reported in the financial statements. ASU 2015-01 retains the presentation and disclosure guidance for items that are unusual in nature or occur infrequently and expands them to include items that are both unusual in nature and infrequently occurring. The Company adopted ASU 2015-01 in fiscal 2017 first quarter when it became effective using the prospective method. The adoption of this guidance did not have any impact on the Company's consolidated financial statements and associated disclosures.

In August 2014 the FASB issued ASU No. 2014-15, "Presentation of Financial Statements - Going Concern (Subtopic 205-40) Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern" (ASU 2014-15). The amendments in ASU 2014-15 require management to assess an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards. ASU 2014-15 requires certain financial statement disclosures when there is "substantial doubt about the entity's ability to continue as a going concern" within one year after the date that the financial statements are issued (or available to be issued). ASU 2014-15 is effective for annual periods ending after December 15, 2016 with early adoption permitted. The Company early adopted ASU 2014-15 in the fiscal 2017 first quarter. The adoption of this guidance did not have any impact on the Company's consolidated financial statements and associated disclosures.

New Accounting Standards Not Yet Adopted

In February 2017, the FASB issued ASU No. 2017-05, "Other Income - Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets" (ASU 2017-05). Subtopic 610-20 was issued as part of the new revenue standard. It provides guidance for recognizing gains and losses from the transfer of nonfinancial assets in contracts with non-customers. The new guidance defines "in substance nonfinancial assets," unifies guidance related to partial sales of nonfinancial assets, eliminates rules specifically addressing sales of real estate, removes exceptions to the financial asset derecognition model, and clarifies the accounting for contributions of nonfinancial assets to joint ventures. The amendments are effective for annual periods beginning after December 15, 2017 with early adoption permitted. Transition can use either the full retrospective approach or the modified retrospective approach. The Company is evaluating the impact the adoption of this guidance will have on its consolidated financial statements, results of operations, and associated disclosures.

In January 2017 the FASB issued ASU No. 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" (ASU 2017-04). This ASU removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. Under the new guidance, a goodwill impairment will be measured as the amount by which a reporting unit's carrying value exceeds its fair value. The amount of any impairment may not exceed the carrying amount of goodwill. The amendments should be applied on a prospective basis. The guidance is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is evaluating the impact the adoption of this guidance will have on its consolidated financial statements, results of operations, and associated disclosures.

In November 2016 the FASB issued ASU 2016-16, "Income Taxes (Topic 740) Intra-Entity Transfers of Assets Other Than Inventory" (ASU 2016-16). Current GAAP prohibits the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. In addition, interpretations of this guidance have developed in practice over the years for transfers of certain intangible and tangible assets. This prohibition on recognition is an exception to the principle of comprehensive recognition of current and deferred income taxes in GAAP. The new guidance eliminates the exception for an intra-entity transfer of an asset other than inventory. The amendments in ASU 2016-16 are effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company can early adopt ASU 2016-16, but earlier adoption must be in the first quarter of the fiscal year. The amendments in ASU 2016-16 will be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The Company is evaluating the impact the adoption of this guidance will have on its consolidated financial statements, results of operations, and associated disclosures.

In August 2016 the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230) Classification of Certain Cash Receipts and Cash Payments" (ASU 2016-15). The new guidance clarifies eight cash flow classification issues where current GAAP was either unclear or had no specific guidance. The new standard is effective for annual reporting periods beginning after December 15, 2017 and interim periods within those fiscal years. All entities may elect to early adopt ASU 2016-15 in any interim period.

If an entity early adopts it must adopt all eight of the amendments in the same period and if early adopted in an interim period any adjustments should be reflected as of the beginning of the year. The amendments in ASU 2016-15 will be applied using the modified retrospective transition method for each period presented. The Company is evaluating the impact the adoption of this guidance will have on the classification of certain items on its Consolidated Statements of Cash Flows.

In June 2016 the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments" (ASU 2016-13). Current GAAP generally delays recognition of the full amount of credit losses until the loss is probable of occurring. The amendments in this guidance eliminate the probable initial recognition threshold and, instead, reflect an entity’s current estimate of all expected credit losses. Previously, when credit losses were measured under GAAP, an entity generally only considered past events and current conditions in measuring the incurred loss. Under ASU 2016-13 the Company will need to create an economic forecast over the entire contractual life of long-dated financial assets. The new standard is effective for annual reporting periods beginning after December 15, 2019. All entities may elect to early adopt ASU 2016-13 for annual reporting periods beginning after December 15, 2018. The amendments in ASU 2016-13 will be applied using the modified retrospective approach by recording a cumulative-effect adjustment to retained earnings in the first reporting period. The Company's trade accounts receivable are in-scope under ASU 2016-13. The Company is evaluating the impact the adoption of this guidance will have on its consolidated financial statements, results of operations, and associated disclosures.

In March 2016 the FASB issued ASU 2016-09, "Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" (ASU 2016-09). ASU 2016-09 amends the accounting for employee share-based payment transactions to require recognition of the tax effects resulting from the settlement of stock-based awards as discrete income tax expense or benefit in the income statement in the reporting period in which they occur. In addition, this guidance requires that all tax-related cash flows resulting from share-based payments, including the excess tax benefits related to the settlement of stock-based awards, be classified as cash flows from operating activities in the statement of cash flows. The guidance also requires that cash paid to taxing authorities on employees' behalf for withheld shares should be classified as a financing activity in the statement of cash flows. In addition, the guidance also allows companies to make an accounting policy election to either estimate the number of awards that are expected to vest, consistent with current GAAP, or account for forfeitures when they occur. The new standard is effective for annual reporting periods beginning after December 15, 2016 with early adoption permitted. ASU 2016-09 requires that the various amendments be adopted using different methods. The Company is evaluating the impact the adoption of this guidance will have on its consolidated financial statements, results of operations, and associated disclosures.

In February 2016 the FASB issued ASU No. 2016-02, "Leases (Topic 842)" (ASU 2016-02). The primary difference between previous GAAP and ASU 2016-02 is the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous GAAP. The guidance requires a lessee to recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. When measuring assets and liabilities arising from a lease, a lessee (and a lessor) should include payments to be made in optional periods only if the lessee is reasonably certain to exercise an option to extend the lease or not to exercise an option to terminate the lease. Similarly, optional payments to purchase the underlying asset should be included in the measurement of lease assets and lease liabilities only if the lessee is reasonably certain to exercise that purchase option. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. If a lessee makes this election, it should recognize lease expense for such leases generally on a straight-line basis over the lease term. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018. Lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The modified retrospective approach includes a number of optional practical expedients that entities may elect to apply. An entity that elects to apply the practical expedients will, in effect, continue to account for leases that commence before the effective date in accordance with previous GAAP unless the lease is modified, except that lessees are required to recognize a right-of-use asset and a lease liability for all operating leases at each reporting date based on the present value of the remaining minimum rental payments that were tracked and disclosed under previous GAAP. The Company is evaluating the impact the adoption of this guidance will have on its consolidated financial statements and associated disclosures.

In May 2014 the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" (ASU 2014-09). ASU 2014-09 provides a comprehensive new recognition model that requires recognition of revenue when a company transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to receive in exchange for those goods or services. This guidance supersedes the revenue recognition requirements in FASB ASC Topic 605, "Revenue Recognition," and most industry-specific guidance. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, companies will need to use more judgment and make more estimates than under the current guidance. It also requires additional disclosure about the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts. In August 2015, the FASB approved a one-year deferral of the effective date (ASU 2015-14) and the standard is now effective for the Company for fiscal 2019 and interim periods therein. ASU 2014-09 may be adopted as of the original effective date, which for the Company is fiscal 2018. The guidance may be applied using either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures). In addition, FASB has amended Topic 606 prior to it becoming effective. The effective date and transition requirements for these amendments to Topic 606 are the same as ASU 2014-09. Management has designated a team to assess the Company's revenue streams to determine what, if any, impact the new standard will have on revenue recognition. The Company's evaluation of ASU 2014-09, and all subsequent amendments to Topic 606, is ongoing and no conclusions have been reached on the method and date of adoption or the impact the adoption will have on the Company’s consolidated financial position, results of operations, and associated disclosures.

(Dollars in thousands, except per-share amounts)

NOTE 2 SELECTED BALANCE SHEET INFORMATION

Following are the components of selected balance sheet items:

	As of January 31,		
	2017	2016	2015
Accounts receivable, net:			
Trade accounts	**$ 43,834**	$ 39,103	$ 56,895
Allowance for doubtful accounts	**(691)**	(1,034)	(319)
	$ 43,143	$ 38,069	$ 56,576
Inventories:			
Finished goods	**$ 5,438**	$ 4,896	$ 8,127
In process	**2,288**	1,845	1,317
Materials	**34,610**	39,098	45,708
	$ 42,336	$ 45,839	$ 55,152
Other current assets:			
Insurance policy benefit	**$ 802**	$ 716	$ 733
Federal income tax receivable	**604**	1,721	713
Prepaid expenses and other	**1,283**	1,992	1,648
	$ 2,689	$ 4,429	$ 3,094
Property, plant and equipment, net:			
Held for use:			
Land	**$ 3,054**	$ 3,054	$ 3,246
Buildings and improvements	**77,817**	77,797	78,140
Machinery and equipment	**142,471**	140,472	131,766
Accumulated depreciation	**(117,018)**	(106,419)	(96,545)
	$ 106,324	$ 114,904	$ 116,607
Held for sale:			
Land	**$ —**	$ 244	$ 11
Buildings and improvements	**—**	1,595	1,522
Machinery and equipment	**—**	329	—
Accumulated depreciation	**—**	(1,368)	(627)
	—	800	906
	$ 106,324	$ 115,704	$ 117,513
Other assets:			
Equity investments	**$ 2,371**	$ 2,805	$ 3,217
Deferred income taxes	**18**	—	—
Other	**1,283**	1,322	526
	$ 3,672	$ 4,127	$ 3,743
Accrued liabilities:			
Salaries and related	**$ 6,286**	$ 1,883	$ 4,063
Benefits	**3,960**	3,864	5,001
Insurance obligations	**2,400**	1,730	1,590
Warranties	**1,547**	1,835	3,120
Income taxes	**498**	475	536
Other taxes	**1,540**	1,117	1,240
Acquisition-related contingent consideration	**445**	407	1,375
Other	**1,379**	731	2,262
	$ 18,055	$ 12,042	$ 19,187
Other liabilities:			
Postretirement benefits	**$ 8,054**	$ 7,662	$ 11,812

Acquisition-related contingent consideration	**1,397**	1,732	3,631
Deferred income taxes	**1,421**	3,247	7,091
Uncertain tax positions	**2,610**	2,999	3,259
Other	**214**	—	—
	$ 13,696	$ 15,640	$ 25,793

(Dollars in thousands, except per-share amounts)

NOTE 3 ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Other comprehensive income refers to revenue, expenses, gains, and losses that under GAAP are recorded as an element of shareholders' equity but are excluded from net income. The changes in the components of accumulated other comprehensive income (loss) (AOCI) are shown below:

	Cumulative foreign currency translation adjustment	Postretirement benefits	Total
Balance at January 31, 2014	$ (282)	$ (1,897)	$ (2,179)
Other comprehensive (loss) before reclassifications	(1,466)	—	(1,466)
Amounts reclassified from accumulated other comprehensive (loss) after tax benefit of $1,187	—	(2,204)	(2,204)
Balance at January 31, 2015	(1,748)	(4,101)	(5,849)
Other comprehensive (loss) before reclassifications	(729)	—	(729)
Amounts reclassified from accumulated other comprehensive (loss) after tax expense of ($1,620)	—	3,077	3,077
Balance at January 31, 2016	(2,477)	(1,024)	(3,501)
Other comprehensive income before reclassifications	**50**	**—**	**50**
Amounts reclassified from accumulated other comprehensive (loss) after tax benefit of $129	**—**	**(225)**	**(225)**
Balance at January 31, 2017	**$ (2,427)**	**$ (1,249)**	**$ (3,676)**

Postretirement benefit cost components are reclassified in their entirety from AOCI to net periodic benefit cost. Net periodic benefit costs are reported in net income as “Cost of sales” or “Selling, general and administrative expenses” in a manner consistent with the classification of direct labor and personnel costs of the eligible employees.

NOTE 4 SUPPLEMENTAL CASH FLOW INFORMATION

	For the years ended January 31,		
	2017	2016	2015
Changes in operating assets and liabilities:			
Accounts receivable	**$ (5,361)**	$ 16,847	$ 4,699
Inventories	**1,215**	7,564	6,753
Prepaid expenses and other assets	**228**	(111)	195
Accounts payable	**2,558**	(5,059)	(3,578)
Accrued and other liabilities	**7,279**	(8,985)	48
Customer advances	**1,126**	(368)	(144)
	$ 7,045	$ 9,888	$ 7,973
Supplemental disclosures of cash flow information:			
Cash paid during the year for income taxes	**$ 6,618**	$ 6,558	$ 14,011
Interest paid	**$ 190**	$ 129	$ 160
Significant non-cash transactions:			
Issuance of common stock for business acquisition	**$ —**	$ —	$ 39,252
Capital expenditures included in accounts payable	**$ 84**	$ 161	$ 564
Capital expenditures converted from inventory	**$ —**	$ 1,036	$ 491

(Dollars in thousands, except per-share amounts)

NOTE 5 ACQUISITIONS OF AND INVESTMENTS IN BUSINESSES AND TECHNOLOGIES

Integra

On November 3, 2014 the Company acquired all of the issued and outstanding shares of Integra Plastics, Inc. (Integra). Integra, which was a privately-held company headquartered in Madison, South Dakota, specialized in the manufacture and conversion of high-quality plastic film and sheeting. This acquisition expanded Raven's Engineered Films Division's production capacity with additional extrusion and lamination operations in Brandon, South Dakota and fabrication locations in Madison, South Dakota and Midland, Texas, as well as broadened Engineered Films' product offerings and enhanced its converting capabilities. Integra's results of operations subsequent to acquisition are included in the Engineered Films segment.

At the acquisition date, the total purchase price was valued at approximately $48,200 net of an estimated working capital adjustment included in the terms of the merger and acquisition agreement. These terms provided for payment through the issuance of 1,541,696 shares of the Company's common stock valued at $39,252 , based on the closing stock price on the date of acquisition and cash payments of $9,361 . The Company received $351 in settlement of the working capital adjustment to the purchase price and finalized deferred tax calculations in fiscal 2016 first quarter. These transactions resulted in an adjustment of about $20 to the purchase price allocation.

The fair value of the business acquired was allocated to the assets acquired and liabilities assumed based on their estimated fair values. The excess of the fair value acquired over the identifiable assets acquired and liabilities assumed is reflected as goodwill. The fair value of the goodwill recorded as part of the purchase price allocation was $27,422 . None of this goodwill is tax deductible. Goodwill resulting from this business combination is largely attributable to the experienced workforce of the acquired business and synergies expected to arise after integration of Integra products and operations into Engineered Films. Identifiable intangible assets acquired as part of the acquisition included definite-lived intangibles for customer relationships and other intangibles valued at $10,000 and $200 , respectively. These intangible assets are being amortized using the straight-line method over their estimated useful life as follows: customer relationships - twelve years and other intangibles - two years. Liabilities assumed from Integra included a revolving line of credit and long-term notes with Wells Fargo Bank N.A. (Wells Fargo). The Company had a related party relationship with Wells Fargo described in Note 10 *Financing Arrangements* . This debt was repaid by the Company in fiscal 2015 and there was no debt outstanding at January 31, 2015.

The purchase price was finalized in the fiscal 2016 first quarter after the working capital adjustment was settled. The total purchase price allocated to the estimated fair values of assets acquired and liabilities assumed was as follows:

Cash	$	1,600
Accounts receivable		4,808
Inventory		7,575
Deferred income taxes		543
Other current assets		24
Property, plant and equipment, net		17,088
Goodwill		27,422
Customer relationships and other definite-lived intangibles		10,200
Short-term and long-term debt		(11,341)
Current liabilities		(4,084)
Other liabilities		(5,573)
Total purchase price	$	48,262

Integra net sales and net loss recognized in fiscal 2015 from the acquisition date to January 31, 2015 were $5,627 and $(874) , respectively. The operations of Integra were fully integrated into Engineered Films' existing operations at the beginning of fiscal year 2016. The Company does not manage such operations or report these results separate and apart from the Engineered Films segment.

(Dollars in thousands, except per-share amounts)

SBG

On May 1, 2014 the Company completed the purchase of all issued and outstanding shares of SBG Innovatie BV and its affiliate, Navtronics BVBA (collectively, SBG). SBG has operations in the Netherlands just outside of Amsterdam and at Navtronics in Geel, Belgium. The acquisition broadened Applied Technology Division’s guided steering system product line by adding high-accuracy implement steering applications. Additionally, SBG’s headquarters have become the home office for Raven in Europe, expanding the Company’s global presence and reach into key European markets.

In connection with the purchase, the Company paid $5,000 and agreed to pay up to $2,500 in additional earn-out payments calculated using the undiscounted cash flows and paid quarterly over the next 10 years contingent upon achieving certain revenues. Projecting discounted future cash flows requires the Company to make significant estimates and assumptions regarding future revenues under the subject contingent agreement and the appropriate discount rate. Such valuations techniques include one or more significant inputs that are not observable (Level 3 fair value measures).

At January 31, 2017, the fair value of this contingent consideration was $ 1,409 of which $247 was classified as "Accrued liabilities" and $1,162 was classified as "Other liabilities." At January 31, 2016, the fair value of this contingent consideration was $1,499 of which $249 was classified as "Accrued liabilities" and $1,250 was classified as "Other liabilities." The fair value of this contingent consideration at January 31, 2015 was $1,432 , of which $236 was classified as "Accrued liabilities" and $1,196 was classified as "Other liabilities." The Company has paid a total of $583 of this potential earn-out liability including $275 , $229 and $79 in earn-out payments during fiscal 2017 , 2016 , and 2015 respectively.

The fair value of the business acquired was allocated to the assets acquired and liabilities assumed based on their estimated fair values. The excess of the fair value acquired over the identifiable assets acquired and liabilities assumed is reflected as goodwill. Goodwill recorded as part of the purchase price allocation was $3,250 , none of which is tax deductible. Identifiable intangible assets acquired as part of the acquisition were $2,104 , and included definite-lived intangibles, such as customer relationships and proprietary technology. Amortization is being computed over the estimated useful life using the undiscounted cash flows method as follows: twelve years for customer relationships and five years for proprietary technology. Liabilities acquired included debts to the former owners, a long-term note with a third-party bank, and deferred income taxes. As further described in Note 10 *Financing Arrangements,* this debt was repaid by the Company and there was no debt outstanding at January 31, 2015.

SBG net sales and net income recognized in fiscal 2015 from the acquisition date to January 31, 2015 were $3,245 and $152 , respectively. The operations of SBG were integrated into the existing operations of the Applied Technology Division at the beginning of fiscal year 2016.

The following pro forma consolidated condensed financial results of operations are presented as if the fiscal year 2015 acquisitions described above had been completed at the beginning of the period presented (unaudited):

		(Unaudited)
		For the year ended January 31, 2015
Net sales	$	408,906
Net income attributable to Raven Industries, Inc.		34,424
Earnings per common share:		
Basic	$	0.90
Diluted	$	0.90

These unaudited pro forma consolidated financial results have been prepared for comparative purposes only and include certain adjustments such as amortization and acquisition cost. The pro forma information does not purport to be indicative of the results of operations that actually would have resulted had these business combinations occurred at the beginning of the period presented, or of future results of the consolidated entities.

Acquisition-related contingent consideration

In addition to the contingent consideration related to the acquisition of SBG, the Company has contingent liabilities related to prior year acquisitions. Related to the acquisition of Vista in 2012 , the Company is committed to make annual payments based upon earn-out percentages on specific revenue streams for seven years after the purchase date, not to exceed $15,000 . Projecting discounted future cash flows requires the Company to make significant estimates and assumptions regarding future revenues under the subject contingent agreement and the appropriate discount rate. Such valuations techniques include one or more significant inputs that are not observable (Level 3 fair value measures).

(Dollars in thousands, except per-share amounts)

As a result of the triggering event that occurred in the third quarter of fiscal 2016, the Company performed an impairment analysis for the Vista reporting unit in fiscal 2016. The triggering event and the result of this analysis is more fully described in Note 6 *Goodwill, Long-lived Assets, and Other Charges* . Related to this analysis, the Company evaluated the fair value of the remaining assets and liabilities including acquisition-related contingent consideration. The analysis resulted in a reduction of $2,273 in the fair value of this contingent consideration for which the benefits were recognized in "Cost of sales" in the Consolidated Statements of Income and Comprehensive Income for the three-month and nine-month periods ended October 31, 2015 and the twelve-month period ended January 31, 2016. The fair value of the contingent consideration for the Vista acquisition at January 31, 2017 was $332 of which $98 was classified in "Accrued liabilities" and $234 as "Other liabilities" in the Consolidated Balance Sheet. At January 31, 2016 , the fair value of the contingent consideration for the Vista acquisition was $560 , of which $78 was classified in "Accrued liabilities" and $482 as "Other liabilities" in the Consolidated Balance Sheet. At January 31, 2015 , the fair value of the contingent consideration for the Vista acquisition was $2,989 of which $ 554 was classified in "Accrued liabilities" and $2,435 as "Other liabilities" in the Consolidated Balance Sheet. These fair values were estimated using forecasted discounted cash flows. The Company has paid a total of $1,471 of this potential earn-out liability including $79 , $585 , and $454 in earn-out payments in fiscal year 2017 , 2016 , and 2015 , respectively.

Equity Method Investments
The Company has owned interests in two affiliates accounted for as equity method investments: AgEagle and SST .

AgEagle
In February 2016 , the Applied Technology Division acquired an interest of approximately 5% in AgEagle. AgEagle is a privately held company that is a leading provider of unmanned aerial systems (UAS) used for agricultural applications. Contemporaneously with the execution of the stock purchase agreement, AgEagle and the Company entered into a distribution agreement whereby the Company was appointed as the sole and exclusive distributor worldwide of the existing AgEagle system as it pertains to the agriculture market. This investment and distribution agreement will allow the Company to expand into the UAS market for agriculture, enhancing its existing product offerings to provide actionable data that customers can use to make important input decisions.

The Company’s owned interest in AgEagle is accounted for using the equity method. The Company determined that the exclusivity of the distribution agreement resulted in an intangible asset. The purchase price was allocated between the equity ownership interest, classified as "Other assets" in the Consolidated Balance Sheet, and this intangible asset, classified as "Amortizable intangible assets, net" in the Consolidated Balance Sheet, which will be amortized on a straight-line basis over the four-year life of the distribution agreement.

SST
The Company’s owned interest of approximately 22% in SST is accounted for using the equity method. SST is a privately-held agricultural software development and information services provider. Raven and SST are strategically aligned to provide customers with simple, more efficient ways to move and manage data in the precision agriculture market.

Changes in the net carrying value of the Company's equity investments was as follows:

	As of January 31,		
	2017	2016	2015
Balance at beginning of year	**$ 2,805**	$ 3,217	$ 3,684
Purchase price of equity investment	**135**	—	—
(Loss) income from equity investment	**(72)**	83	28
Amortization of intangible assets	**(497)**	(495)	(495)
Balance at end of year	**$ 2,371**	$ 2,805	$ 3,217

(Dollars in thousands, except per-share amounts)

NOTE 6 GOODWILL, LONG-LIVED ASSETS, AND OTHER CHARGES

Goodwill

For goodwill, the Company performs impairment reviews by reporting unit. At the end of fiscal 2016, the Company determined the reporting units to be Engineered Films Division, Applied Technology Division, and two separate reporting units in the Aerostar Division, one of which is Vista and one of which is all other Aerostar operations (Aerostar excluding Vista).

During the first quarter of fiscal 2017, management implemented managerial and financial reporting changes within Vista and Aerostar to further integrate Vista into the Aerostar Division. Integration actions included leadership re-alignment, including selling and business development leadership functions, re-deployment of employees across the division, and consolidation of administrative functions, among other actions. Based on the changes made, the Company consolidated the two separate reporting units within the Aerostar Division into one reporting unit for the purposes of goodwill impairment review. As such, as of April 30, 2016, the Company has three reporting units: Engineered Films Division, Applied Technology Division, and Aerostar Division. The Company reviewed the quantitative and qualitative factors associated with the change in reporting unit and determined there were no indicators of impairment at the time of the reporting unit change.

The changes in the carrying amount of goodwill by reporting unit are shown below:

	Applied Technology	Engineered Films	Aerostar [b]	Vista	Total
Balance at January 31, 2014	$ 9,892	$ 96	$ 789	$ 11,497	$ 22,274
Acquired goodwill	3,250	27,216	—	—	30,466
Foreign currency translation adjustment	(592)	—	—	—	(592)
Balance at January 31, 2015	12,550	27,312	789	11,497	52,148
Purchase price adjustment to acquired goodwill [a]	—	206	—	—	206
Goodwill disposed from sale of business	(69)	—	—	—	(69)
Goodwill impairment loss	—	—	—	(11,497)	(11,497)
Foreign currency translation adjustment	(116)	—	—	—	(116)
Balance at January 31, 2016	12,365	27,518	789	—	40,672
Foreign currency translation adjustment	**(23)**	—	—	—	**(23)**
Reporting unit transfer balance [b]	—	—	—	—	—
Balance at January 31, 2017	**$ 12,342**	**$ 27,518**	**$ 789**	**$ —**	**$ 40,649**

[a] *Working capital adjustment and final deferred tax adjustment for Integra acquisition (see Note 5 Acquisitions of and Investments in Businesses and Technologies).*
[b] *The Company combined the Aerostar and Vista reporting units in fiscal 2017. No goodwill amount was transferred between reporting units due to the goodwill impairment loss recorded at the Vista reporting unit during fiscal 2016.*

Goodwill is tested for impairment on an annual basis and between annual tests whenever a triggering event indicates there may be an impairment. The annual impairment tests were completed for each reporting unit in the fourth quarter based on a November 30th valuation date. No triggering events were deemed to have occurred in the fourth quarter and no impairments were recorded as a result of the annual impairment testing. The Aerostar reporting unit was also tested earlier in fiscal 2017 as a result of a triggering event that had occurred.

Fiscal 2017 Goodwill Impairment Testing

In the fiscal 2017 third quarter, the Company determined that a triggering event occurred for its Aerostar reporting unit. The triggering event was caused by lower financial expectations for net sales and operating income of the reporting unit and certain asset groups due to delays and uncertainties regarding the reporting unit's pursuit of certain opportunities, including aerostat orders, certain classified stratospheric balloon pursuits, and radar pursuits. Aerostar is still actively pursuing these opportunities and some are in active negotiations, but the timing of certain aerostat and classified stratospheric balloon opportunities are being delayed more than previously expected and the likelihood of radar sales is lower due to the Company's decision to no longer actively pursue certain radar product opportunities. The Step 1 impairment analysis was completed using fair value techniques as of October 31, 2016. In determining the estimated fair value of the Aerostar reporting unit, the Company was required to estimate a number of factors, including projected revenue growth rates, projected operating results, terminal growth rates, economic conditions, anticipated future cash flows, and the discount rate. On the basis of these estimates, the October 31, 2016 analysis indicated that the estimated fair value of the Aerostar reporting unit exceeded the reporting unit carrying value by approximately $9,000 , or approximately 30% .

(Dollars in thousands, except per-share amounts)

Fiscal 2016 Goodwill Impairment Testing
In the fiscal 2016 third quarter, the Company determined that a triggering event occurred for its Vista reporting unit. The triggering event was caused by the lowering of financial expectations for sales and operating income of the reporting unit due to delays and uncertainties regarding the reporting unit's pursuit of large international opportunities. Despite the Company having a pre-authorization letter from the prime contractor and being in negotiations on a large international contract through the fiscal 2016 second quarter, the contract did not materialize in the fiscal 2016 third quarter as expected. Expectations were lowered as the timing and likelihood of completing certain international pursuits became less certain. In addition, the Company made a change in the executive leadership of the reporting unit during the third quarter. The Step 1 impairment analysis was completed using fair value techniques as of October 31, 2015. In determining the estimated fair value of the Vista reporting unit, the Company was required to make assumptions and estimate a number of factors, including projected revenue growth rates (particularly those related to being successful in being awarded large, international contracts and the timing thereof), operating profit margin percentage, and the discount rate. On the basis of these estimates, the October 31, 2015 analysis indicated that the estimated fair value of the Vista reporting unit was less than the carrying value. The carrying value exceeded the estimated fair value by approximately $14,000 , or 64% .

Pursuant to the applicable accounting guidance, the Company performed a Step 2 impairment analysis. In the Step 2 impairment analysis, the fair value determined was allocated to the assets and liabilities of the reporting unit. Based on this Step 2 impairment analysis the resulting implied fair value of the Vista goodwill was determined to have no value compared to the carrying value recorded for the reporting unit, $11,497 . In the fiscal 2016 third quarter an impairment charge to operating income of $11,497 was reported as "Goodwill impairment loss" in the Consolidated Statements of Income and Comprehensive Income.

Goodwill gross of accumulated impairment losses at January 31, 2017, 2016, and 2015 was $52,146 , $52,169 , and $52,148 , respectively. Goodwill net of accumulated impairment losses at January 31, 2017, 2016 and 2015 was $40,649 , $40,672 , and $52,148 , respectively.

Intangible Assets
The following table provides the gross carrying amount and related accumulated amortization of definite-lived intangible assets:

	For the years ended January 31,								
	2017			2016			2015		
	Amount	**Accumulated amortization**	**Net**	Amount	Accumulated amortization	Net	Amount	Accumulated amortization	Net
Existing technology	**$ 7,136**	**$ (6,553)**	**$ 583**	$ 7,144	$ (6,265)	$ 879	$ 8,870	$ (5,239)	$ 3,631
Customer relationships	**12,987**	**(3,680)**	**9,307**	12,628	(2,641)	9,987	14,128	(1,271)	12,857
Patents and other intangibles	**4,378**	**(2,220)**	**2,158**	3,967	(1,877)	2,090	3,657	(1,655)	2,002
Total	**$ 24,501**	**$ (12,453)**	**$ 12,048**	$ 23,739	$ (10,783)	$ 12,956	$ 26,655	$ (8,165)	$ 18,490

The estimated future amortization expense for these definite-lived intangible assets, as well as definite-lived intangible assets held by SST, during the next five years is as follows:

	2018	2019	2020	2021	2022
Estimated amortization expense	$ 1,936	$ 1,822	$ 1,576	$ 1,096	$ 1,067

Long-lived assets, including definite-lived intangibles, are tested for recoverability whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. Management periodically assesses for triggering events and discusses any significant changes in the utilization of long-lived assets. For purposes of recognition and measurement of an impairment loss, a long-lived asset is grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities.

Fiscal 2017 Long-lived Intangibles Impairment Assessment
The Company evaluated the triggering events described in the goodwill impairment analysis and determined there were also triggering events with respect to the assets associated with the aerostat and stratospheric programs (Lighter than Air) and the radar product and radar services (Radar) asset groups in the Aerostar reporting unit in the third quarter of fiscal 2017, which resulted in an asset impairment test.

Using the sum of the undiscounted cash flows associated with each of the two asset groups, a Step 1 test was performed for each asset group. The undiscounted cash flows for the Lighter than Air asset group exceeded the carrying value of the long-lived assets by approximately $110,000 , or 800% , and no Step 2 test was deemed to be necessary based on the recoverability of the long-lived assets. For the Radar asset group, however, the undiscounted cash flows did not exceed the carrying value of the long-lived assets and the Company performed a Step 2 impairment analysis for the long-lived assets.

In the Step 2 impairment analysis, the fair value determined was allocated to the assets and liabilities of the Radar asset group. The resulting estimated fair value of the Radar asset group long-lived assets was $175 compared to the carrying value of $262 for the asset group. The shortfall of $87 was recorded in the fiscal 2017 third quarter as an impairment charge to operating income reported as "Long-lived asset impairment loss" in the Consolidated Statements of Income and Comprehensive Income. The total impairment loss related to property, plant, and equipment and patents was $62 and $25 , respectively.

Fiscal 2016 Long-lived Intangibles Impairment Assessment

As described in our Annual Report on Form 10-K/A for the fiscal year ended January 31, 2016, the Company determined that the relevant cash flows for long-lived asset testing (the lowest level of cash flows that are largely independent of other assets) are one level below the Vista reporting unit. For Vista, these levels were determined to be asset groups identified for the client private business (CP) and Radar. Based on the assessment of the forecasts of cash flows and these asset groups, the Company concluded that certain long-lived assets of the Vista reporting unit, including finite-lived intangible assets, were impaired as of October 31, 2015.

Using the sum of the undiscounted cash flows associated with each of the two asset groups, a Step 1 test was performed for each asset group. The undiscounted cash flows for the CP asset group exceeded the carrying value of the long-lived assets and no Step 2 test was deemed to be necessary based on the recoverability of the long-lived assets. For the Radar asset group, however, the undiscounted cash flows did not exceed the carrying value of the long-lived assets and the Company performed a Step 2 impairment analysis for the long-lived assets.

In the Step 2 impairment analysis, the fair value determined was allocated to the assets and liabilities of the Radar asset group. The resulting implied fair value of the Radar asset group long-lived assets was $103 compared to the carrying value of $3,916 for the asset group. The shortfall of $3,813 was recorded in the third quarter of fiscal 2016 as an impairment charge to operating income reported as "Long-lived asset impairment loss" in the Consolidated Statements of Income and Comprehensive Income. Of the total long-lived asset impairment of $3,813 , $3,154 was related to amortizable intangible assets related to radar technology and radar customers, $554 was related to property, plant, and equipment, and $105 was related to patents. In addition, expenditures of $13 for additional patents related to the Radar asset group in the fiscal 2016 fourth quarter were also considered to have been impaired. The carrying value was fully impaired in the third quarter of fiscal 2016.

Fiscal 2015 Long-lived Intangibles Impairment Assessment

There were no long-lived asset impairment losses reported in fiscal year 2015.

Other Charges

Inventory Write-downs

Due to the Company's decision to no longer actively pursue certain radar opportunities, during the fiscal 2017 third quarter the Company wrote-down radar inventory, purchased primarily during fiscal 2016. The decision to write-down this inventory is consistent with the triggering event identified during the fiscal 2017 third quarter relating to the Aerostar reporting unit and the Radar asset group. This radar-specific inventory write-down increased "Cost of sales" by $2,278 in fiscal 2017. At January 31, 2017 the carrying value of Aerostar's radar systems inventory was $4,260 . There were no specific radar inventory write-downs in fiscal 2016 or 2015.

Pre-contract Deferred Cost Write-offs

From time to time, the Company incurs costs before a contract is finalized and such pre-contract costs are deferred to the balance sheet to the extent they relate to a specific project and the Company has concluded that is probable that the contract will be awarded for more than the amount deferred. Pre-contract cost deferrals are common with Vista's business pursuits. As described above, Vista was pursuing international opportunities and was in the process of negotiating a large international contract that did not materialize in the fiscal 2016 third quarter as expected. Expectations were lowered as the timing and likelihood of completing certain international pursuits became less certain. Corresponding to these lower expectations, the pre-contract costs associated with these pursuits were written off during the fiscal 2016 third quarter. Vista recorded a charge of $2,933 , (which is comprised of $2,075 of costs capitalized as of July 31, 2015 and additional costs of $858 capitalized during August and September 2015) for the write-off of these pre-contract costs. This charge is recorded in “Cost of sales” in the Consolidated Statements of Income and Comprehensive Income. There were no pre-contract costs written-off in 2017 or 2015.

(Dollars in thousands, except per-share amounts)

NOTE 7 **EMPLOYEE POSTRETIREMENT BENEFITS**

As of January 1, 2017, the Company has one 401(k) plan covering substantially all employees. This plan, which covers the majority of employees, matches employee contributions up to 4% . Under this plan all account balances and future contributions and related earnings can be invested in several investment alternatives as well as the Company's common stock in accordance with each participant's elections. Participants may choose to make separate investment choices for current account balances and for future contributions. As a result of changes to the plan’s permissible investment options effective January 1, 2017, participants' contributions to the 401(k) and the employer matching contributions are limited to 10% investment in the Company's common stock. This limit was previously 20% . The plan does not allow a participant to exchange more than 10% of their existing account balance into the Company’s common stock nor permit exchanges that would cause the participant’s investment in the Company’s common stock to exceed 10% . Officers of the Company may not include Raven's common stock in their 401(k) plan elections.

Prior to January 1, 2017, the Company had a second 401(k) plan that was assumed as part of the Vista acquisition. This plan was terminated December 31, 2016 and all participant contributions were merged into the plan previously described. Employee contributions under this plan were matched up to 4% under an amendment in fiscal 2015 to eliminate a 3% annual contribution and to eliminate a provision allowing an additional annual discretionary contribution. The Company also assumed an additional 401(k) profit sharing plan as part of the Integra acquisition. This plan was merged into Raven's 401(k) plan on December 31, 2014. The Company also contributes to post-retirement and pensions as are required or customary for employees in foreign locations. Total contribution expense to all such plans was $2,030 , $1,952 , and $2,416 for fiscal 2017 , 2016 , and 2015 , respectively.

In addition, the Company provides postretirement medical and other benefits to senior executive officers and senior managers. These plan obligations are unfunded. On August 25, 2015 the Company eliminated postretirement medical benefits to five of its senior executive officers and their spouses. In consideration of the elimination of this retiree benefit, each senior executive officer received a lump sum payment in an amount ranging from $8 to $15 based on the officer’s years of service to the Company. At the time of this amendment, the Company’s senior executive officers that either already qualified for retirement or had twenty or more years of service to the Company remained eligible for benefits under their employment agreements. The elimination of coverage for these executives reduced the benefit obligation due to prior service by approximately $1,000 as of August 31, 2015. The amount was recognized as a negative plan amendment and is being amortized over the average remaining years of service to full eligibility for active participants not yet fully eligible for benefits as of August 31, 2015. The accumulated benefit obligation, including the impact of the plan amendment and remeasurement during fiscal 2016, for these benefits is as follows:

	For the years ended January 31,		
	2017	2016	2015
Benefit obligation at beginning of year	**$ 7,991**	$ 12,125	$ 8,254
Service cost	**80**	285	195
Interest cost	**333**	386	366
Amendments	**—**	(958)	—
Actuarial loss (gain) and assumption changes	**341**	(3,544)	3,543
Retiree benefits paid	**(329)**	(303)	(233)
Benefit obligation at end of year	**$ 8,416**	$ 7,991	$ 12,125

(Dollars in thousands, except per-share amounts)

The following tables set forth the plan's pre-tax adjustment to accumulated other comprehensive income/loss:

	For the years ended January 31,					
	2017		2016		2015	
Amounts not yet recognized in net periodic benefit cost:						
Net actuarial loss	**$**	**2,699**	$	2,504	$	6,309
Prior service cost		**(732)**		(892)		—
Total pre-tax accumulated other comprehensive loss	**$**	**1,967**	$	1,612	$	6,309
Pre-tax accumulated other comprehensive loss - beginning of year related to benefit obligation	**$**	**1,612**	$	6,309	$	2,918
Reclassification adjustments recognized in benefit cost:						
Recognized net (loss)		**(146)**		(261)		(152)
Amortization of prior service cost		**160**		66		—
Amounts recognized in AOCI during the year:						
Prior service cost from amendments		**—**		(958)		—
Net actuarial loss (gain)		**341**		(3,544)		3,543
Pre-tax accumulated other comprehensive loss - end of year related to benefit obligation	**$**	**1,967**	$	1,612	$	6,309

The net actuarial loss for fiscal year 2017 was the result of a decrease in the discount rate, a decrease in the average life expectancy by approximately half a year based on the application of an updated mortality projection scale, and census changes. The net actuarial gain for fiscal year 2016 was the result of the negative plan amendment, an increase in the discount rate, lower than expected claims, updated trend rates, and application of updated mortality assumptions in which the average life expectancy increased. The net actuarial loss for fiscal year 2015 was result of a decrease in the discount rate and application of updated mortality assumptions in which the average life expectancy increased.

The liability and net periodic benefit cost reflected in the Consolidated Balance Sheets and Consolidated Statements of Income and Comprehensive Income were as follows:

	For the years ended January 31,					
	2017		2016		2015	
Beginning liability balance	**$**	**7,991**	$	12,125	$	8,254
Net periodic benefit cost		**399**		866		713
Other comprehensive loss (income)		**355**		(4,697)		3,391
Total recognized in net periodic benefit cost and other comprehensive income		**754**		(3,831)		4,104
Retiree benefits paid		**(329)**		(303)		(233)
Ending liability balance	**$**	**8,416**	$	7,991	$	12,125
Current portion in accrued liabilities	**$**	**362**	$	329	$	313
Long-term portion in other liabilities	**$**	**8,054**	$	7,662	$	11,812
Assumptions used to calculate benefit obligation:						
Discount rate		**4.00%**		4.25%		3.50%
Rate of compensation increase		**4.00%**		4.00%		4.00%
Health care cost trend rates:						
Health care cost trend rate assumed for next year		**6.67%**		6.83% [(a)] | 7.00% [(b)]		7.20%
Ultimate health care cost trend rate		**4.50%**		4.50% [(a)] | 5 .00% [(b)]		5.00%
Year that the rate reaches the ultimate trend rate		**2030**		2030 [(a)] | 2025 [(b)]		2025
Assumptions used to calculated the net periodic benefit cost:						
Discount rate		**4.25%**		4.25% [(a)] | 3.50% [(b)]		4.50%
Rate of compensation increase		**4.00%**		4.00%		4.00%

[(a)] *Assumptions used for the five months of fiscal 2016 following the August 31, 2015 remeasurement.*
[(b)] *Assumptions used for the seven months of fiscal 2016 prior to the plan amendment triggering the August 31, 2015 remeasurement.*

(Dollars in thousands, except per-share amounts)

The discount rate is based on matching rates of return on high-quality fixed-income investments with the timing and amount of expected benefit payments. No material fluctuations in retiree benefit payments are expected in future years. The total estimated cost to be recognized from AOCI into net periodic benefit cost over the next fiscal year is $(40) ; $120 of recognized net loss and
$(160) of amortized prior service cost.

The assumed health care cost trend rate has a significant effect on the amounts reported. The impact of a one-percentage point change in assumed health care rates would have the following effects:

	January 31, 2017			
	One-percentage-point increase		One-percentage-point decrease	
Effect on total of service and interest cost components	**$**	**91**	**$**	**(69)**
Effect on accumulated postretirement benefit obligation	**$**	**1,486**	**$**	**(1,159)**

The Company expects to make $362 in postretirement medical and other benefit payments in fiscal 2018 . The following postretirement other than pension benefit payments, which reflect expected future service as appropriate, are expected to be paid:

	2018		2019		2020		2021		2022 - 2027	
Expected postretirement medical and other benefit payments	$	362	$	371	$	366	$	379	$	2,372

NOTE 8 **WARRANTIES**

Changes in the warranty accrual were as follows:

	For the years ended January 31,					
	2017		2016		2015	
Beginning balance	**$**	**1,835**	$	3,120	$	2,525
Acquired		**—**		—		50
Accrual for warranties		**1,597**		1,945		3,467
Settlements made		**(1,885)**		(3,230)		(2,922)
Ending balance	**$**	**1,547**	$	1,835	$	3,120

NOTE 9 **INCOME TAXES**

The reconciliation of income tax computed at the federal statutory rate to the Company's effective income tax rate was as follows:

	For the years ended January 31,		
	2017	2016	2015
Tax at U.S. federal statutory rate	**35.0 %**	35.0 %	35.0 %
State and local income taxes, net of U.S. federal tax benefit	**0.7**	(2.8)	(0.3)
Tax credit for research activities	**(3.7)**	(24.2)	(3.9)
Tax benefit on qualified production activities	**(2.8)**	(13.7)	(3.6)
Tax benefit on insurance premiums	**(1.5)**	(10.3)	(1.0)
Change in uncertain tax positions	**(0.3)**	1.8	—
Foreign tax rate difference	**(0.3)**	(2.9)	0.4
Other, net	**0.4**	(1.7)	0.3
	27.5 %	(18.8)%	26.9 %

The Company's fiscal 2017 effective rate is lower than the statutory rate primarily due to a $779 tax benefit for qualified production activities and a $1,044 tax benefit from the R&D tax credit.

The negative fiscal 2016 effective rate is lower than the statutory rate primarily due to the combination of a significantly lower book income year-over-year, a $560 tax benefit for qualified production activities, and a $989 tax benefit from the R&D tax credit extension passed by Congress in fiscal 2016. The qualified production deduction is based on estimated taxable income. Taxable income is higher in comparison to pre-tax income for fiscal 2016 primarily due to $14,756 of goodwill and long-lived asset impairment losses recorded in net income which are not currently deductible but are amortizable for income tax purposes.

The effective tax rate for fiscal 2015 was lower than the statutory rate primarily due to the recognition of a $776 R&D tax credit based upon a tax study undertaken for fiscal years 2011 through 2014. The Company also recorded a $963 discrete tax benefit in fiscal 2015 after reaching a favorable tax settlement with a state tax authority on a previously recorded uncertain tax position.

Significant components of the Company's income tax provision were as follows:

	For the years ended January 31,		
	2017	2016	2015
Income taxes:			
Currently payable	**$ 7,354**	$ 5,272	$ 12,663
Deferred expense (benefit)	**307**	(6,039)	(958)
	$ 7,661	$ (767)	$ 11,705

Deferred Tax Assets (Liabilities)

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 deferred tax assets and liabilities were as follows:

	As of January 31,		
	2017	2016	2015
Deferred tax assets:			
Accounts receivable [(a)]	**$ 212**	$ 355	$ 194
Inventories [(a)]	**978**	602	873
Accrued vacation [(a)]	**887**	836	940
Insurance obligations [(a)]	**383**	350	271
Accrued benefit liabilities [(a)]	**41**	99	261
Warranty obligations [(a)]	**565**	670	1,225
Postretirement benefits	**3,072**	2,797	4,243
Uncertain tax positions	**803**	896	1,002
Share-based compensation	**3,201**	3,613	4,410
Other accrued liabilities [(a)]	**68**	198	194
	10,210	10,416	13,613
Deferred tax (liabilities):			
Depreciation and amortization	**(10,565)**	(9,886)	(16,099)
Other	**(1,048)**	(667)	(647)
	(11,613)	(10,553)	(16,746)
Net deferred tax (liability)	**$ (1,403)**	$ (137)	$ (3,133)

[(a)] *As discussed below, under the prior accounting guidance these deferred tax assets were classified as current deferred tax assets. All other deferred tax assets and liabilities were classified as non-current.*

As discussed in Note 1 *Summary of Significant Accounting Policies* , effective April 30, 2016, the Company early adopted Accounting Standards Update No. 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes " on a prospective basis. This update eliminates the requirement to classify deferred tax assets and liabilities as current and noncurrent, and instead requires all deferred tax assets and liabilities to be classified as noncurrent. Since the guidance was adopted prospectively, the prior period Consolidated Balance Sheets were not updated; however, the prior years in the table above were updated to disclose deferred tax assets separately from deferred tax liabilities and no longer classifies the deferred tax assets/(liabilities) as current and noncurrent.

Uncertain Tax Positions

A summary of the activity related to the gross unrecognized tax benefits (excluding interest and penalties) is as follows:

	For the years ended January 31,		
	2017	2016	2015
Gross unrecognized tax benefits at beginning of year	**$ 2,327**	$ 2,307	$ 4,660
Increases in tax positions related to the current year	**279**	395	909
Decreases in tax positions related to prior years	**(193)**	—	—
Decreases as a result of lapses in applicable statutes of limitation	**(303)**	(375)	(393)
Tax settlement with tax authorities	**—**	—	(2,869)
Gross unrecognized tax benefits at end of year	**$ 2,110**	$ 2,327	$ 2,307

Fiscal year 2017 changes to uncertain tax positions related to prior years resulted from lapses of applicable statutes of limitation and a decrease to prior period tax positions primarily related to a favorable determination by a state tax authority impacting the Company's estimated liability. The fiscal year 2015 included a favorable settlement reached with a state tax authority.

The total unrecognized tax benefits (including interest and penalty) that, if recognized, would affect the Company's effective tax rate were $1,806 , $2,140 , and $2,256 as of January 31, 2017 , 2016, and 2015, respectively. The Company recognizes interest and penalties accrued related to unrecognized tax benefits in income tax expense. At January 31, 2017 , 2016, and 2015, accrued interest and penalties were $500 , $672 , and $952 , respectively. The Company does not expect any significant change in the amount of unrecognized tax benefits in the next fiscal year.

Additional Tax Information

The Company files tax returns, including returns for its subsidiaries, with various federal, state, and local jurisdictions. Uncertain tax positions are related to tax years that remain subject to examination. As of January 31, 2017 , federal tax returns filed in the U.S. for fiscal years ended January 31, 2014 through January 31, 2016 remain subject to examination by federal tax authorities. In state and local jurisdictions, tax returns for fiscal years ended January 31, 2011 through January 31, 2016 remain subject to examination by state and local tax authorities. International jurisdictions have open tax years varying by location beginning in fiscal 2012.

Pre-tax book income for the U.S. companies and the foreign subsidiaries was $ 27,015 and $ 838 , respectively. As of January 31, 2017 , undistributed earnings of $2,510 of the Canadian and European subsidiaries and were considered to have been reinvested indefinitely and, accordingly, the Company has not provided United States income taxes on such earnings. This estimated tax liability upon repatriation would be approximately $293 net of foreign tax credits.

NOTE 10 **FINANCING ARRANGEMENTS**

The Company entered into a credit facility on April 15, 2015 with JPMorgan Chase Bank, N.A., Toronto Branch as Canadian Administrative Agent, JPMorgan Chase Bank, National Association, as administrative agent, and each lender from time to time party thereto (the Credit Agreement). The Credit Agreement, which replaced an uncollateralized line of credit of $10,500 with Wells Fargo maturing November 30, 2016 , provides for a syndicated senior revolving credit facility up to $125,000 with a maturity date of April 15, 2020 . Wells Fargo, a participating lender under the Credit Agreement holds the majority of the Company's cash and cash equivalents. One member of the Company's Board of Directors, who served through May 2016, is also on the Board of Directors of Wells Fargo & Company, the parent company of Wells Fargo.

Simultaneous with execution of the Credit Agreement, Raven, Aerostar, Vista, and Integra entered into a guaranty agreement in favor of JPMorgan Chase Bank National Association in its capacity as administrator under the Credit Agreement for the benefit of JPMorgan Chase Bank N.A., Toronto Branch and the lenders and their affiliates under the Credit Agreement.

Unamortized debt issuance costs associated with this Credit Agreement were $352 and $461 at January 31, 2017 and January 31, 2016, respectively, and are included in "Other assets" in the Consolidated Balance Sheets. Loans or borrowings defined under the Credit Agreement bear interest and fees at varying rates and terms defined in the Credit Agreement based on the type of borrowing as defined. The Credit Agreement includes annual administrative and unborrowed capacity fees. Such fees were $215 and $213 for the years ended January 31, 2017 and January 31, 2016, respectively.

(Dollars in thousands, except per-share amounts)

The Credit Agreement also contains customary affirmative and negative covenants, including those relating to financial reporting and notification, limits on levels of indebtedness and liens, investments, mergers and acquisitions, affiliate transactions, sales of assets, restrictive agreements, and change in control as defined in the Credit Agreement. The Company requested and received the necessary covenant waivers relating to its late filing of financial information in fiscal 2017. Financial covenants include an interest coverage ratio and funded indebtedness to earnings before interest, taxes, depreciation, and amortization as defined in the Credit Agreement. The Company is in compliance with all financial covenants set forth in the Credit Agreement.

Letters of credit (LOC) totaling $664 issued under the previous line of credit with Wells Fargo were outstanding at January 31, 2016. These LOC primarily support self-insured workers' compensation bonding. All but one $50 LOC has been transferred and issued under the Credit Agreement as of January 31, 2017 . At January 31, 2017 , $464 of LOCs were outstanding under the Credit Agreement and $50 issued by Wells Fargo was outstanding. Any draws required under the Wells Fargo LOC would be settled with available cash or borrowings under the Credit Agreement. $124,536 was available under the Credit Agreement for borrowings as of January 31, 2017 . Loan proceeds may be utilized by Raven for strategic business purposes and for net working capital needs.

There were no borrowings outstanding for any of the fiscal periods covered by this Annual Report on Form 10-K. There have been no borrowings under credit agreements in the last three fiscal years.

Pursuant to the acquisition of SBG and Integra in fiscal year 2015 as described in Note 5 *Acquisitions of and Investments in Businesses and Technologies,* the Company assumed liabilities including debts to former owners, a line of credit and long-term notes. Although there was a short-term net working capital borrowing under Integra's line of credit, such borrowing and assumed debt was subsequently paid in full and the line of credit was closed. There was no assumed debt outstanding at January 31, 2017, 2016, and 2015. The changes in the outstanding debt are shown below:

	Line of credit	Long-term notes	Notes with former owners and others	Debt Outstanding
Balance at January 31, 2014	$ —	$ —	$ —	$ —
Acquired in business combination	1,465	9,876	648	11,989
Additional borrowings	2,127	—	—	2,127
Debt repayment	(3,592)	(9,876)	(648)	(14,116)
Balance at January 31, 2015	$ —	$ —	$ —	$ —
Balance at January 31, 2016	$ —	$ —	$ —	$ —
Balance at January 31, 2017	**$ —**	**$ —**	**$ —**	**$ —**

[a] *The line of credit and long-term notes were assumed in the Integra business combination. The notes with former owners and others were assumed in the SBG business combination.*

The Company leases certain vehicles, equipment, and facilities under operating leases. Total rent and lease expense was $2,028 , $2,095 , and $1,977 in fiscal 2017 , 2016 , and 2015 , respectively.

Future minimum lease payments under non-cancelable operating leases are as follows:

	2018	2019	2020	2021	2022	Thereafter
Minimum lease payments	$ 1,647	$ 1,276	$ 1,208	$ 1,188	$ —	$ —

NOTE 11 COMMITMENTS AND CONTINGENCIES

The Company is involved as a party in lawsuits, claims, regulatory inquiries, or disputes arising in the normal course of its business, the potential costs and liability of which cannot be determined at this time. Among these matters is a patent infringement lawsuit in the early stages of litigation. In a lawsuit filed in federal district court in Kansas, Capstan Ag Systems, Inc. has made certain infringement claims against the Company and one of its customers, CNH Industrial America LLC, related to the Applied Technology Division’s Hawkeye ™ nozzle control system. Management does not believe the ultimate outcomes of its legal proceedings are likely to be significant to its results of operations, financial position, or cash flows, except that, because of its preliminary stage, management cannot determine the potential impact, if any, of the patent infringement lawsuit described above.

The Company has insurance policies that provide coverage to various degrees for potential liabilities arising from legal proceedings.

(Dollars in thousands, except per-share amounts)

In addition to commitments disclosed elsewhere in the Notes to the Consolidated Financial Statements, the Company has the following obligations and commitments at January 31, 2017:

	Total	2018	2019 - 2020	2021 - 2022	2023 and After
Unconditional purchase obligations	$ 31,976	$ 31,976	$ —	$ —	$ —
Postretirement benefits [(a)]	18,698	362	737	757	16,842
Credit facility [(b)]	699	212	424	63	—
	$ 51,373	$ 32,550	$ 1,161	$ 820	$ 16,842

[(a)] *Postretirement benefit amounts represent expected payments on the accumulated postretirement benefit obligation before it is discounted.*
[(b)] *Amounts reflect administrative and unborrowed capacity fees under the credit facility described below.*

Purchase obligations consist of those for inventory and other obligations that arise in the normal course of business operations. The majority of these obligations are related to the Applied Technology and Engineered Films divisions and arise from the purchase of raw materials inventory.

NOTE 12 **RESTRUCTURING COSTS**

The Company has no ongoing restructuring plans or unpaid restructuring costs at January 31, 2017 . No restructuring costs were incurred in fiscal 2017.

In the fiscal 2015 fourth quarter, the Company announced and implemented a restructuring plan to lower Applied Technology’s cost structure in response to weak commodity prices, eroding grower sentiment, reduced demand for precision agricultural equipment, and the anticipated revenue decline of non-strategic legacy customers. In the same period, Engineered Films implemented a preemptive restructuring plan to address the decline in demand in the energy sector as the result of falling oil prices. In addition to reducing its international sales infrastructure, scaling back marketing initiatives, lowering general manufacturing overhead, and focusing R&D spending on core product lines, the Company initiated the exit of Applied Technology’s non-strategic St. Louis, Missouri contract manufacturing facility.

As a result of these actions, the Company incurred restructuring costs of approximately $399 for the fiscal year ended January 31, 2015. Such costs were principally severance benefits which were $308 for Applied Technology and $91 for Engineered Films. The Company reported $250 of this expense in "Cost of sales" and $149 in "Selling, general, and administrative expenses" in the Consolidated Statements of Income and Comprehensive Income. Approximately $344 of these restructuring costs were paid in fiscal 2015 and $55 were paid in fiscal 2016.

Subsequent to the end of fiscal 2015, the Company announced that Applied Technology's remaining contract manufacturing operations in the St. Louis, Missouri area had been successfully sold and transferred. The exit activities related to this sale and transfer were substantially completed during the fiscal 2016 first quarter. Proceeds from the sale of these assets were $1,288 and gains of $611 were recorded in fiscal 2016 as a result of the exit activity. Receivables for inventory and estimated future royalties pursuant to the sale agreements were $28 and are reflected in "Other current assets" in the Consolidated Balance Sheet at January 31, 2017 .

The exit of Applied Technology’s St. Louis operations was completed in fiscal 2017 with the sale of the idle manufacturing facility. Proceeds from the sale of this asset were $960 and gains of $160 were recognized in "Selling, general, and administrative expenses in the Consolidated Statements of Income and Comprehensive Income for fiscal 2017.

With continued weak end-market demand in the Engineered Films and Applied Technology divisions, on March 10, 2015 the Company announced and implemented an additional restructuring plan to further lower its cost structure. The cost reductions covered all divisions and included the corporate offices, but were weighted to Applied Technology as a result of the decline in this business and the expectation of continued end-market weakness for this division.

As a result of this action, the Company incurred restructuring costs for severance benefits of $588 for the year ended January 31, 2016 . The Company reported $407 of restructuring expense in "Cost of sales" and $181 in "Selling, general, and administrative expenses" in the Consolidated Statements of Income and Comprehensive Income for fiscal 2016. Substantially all of these restructuring costs related to Applied Technology. This restructuring plan was completed during the fiscal 2016 second quarter.

(Dollars in thousands, except per-share amounts)

In October 2015 , the Company's Aerostar Division implemented a restructuring plan at Vista to lower its cost structure due to reduced demand expectations primarily related to delays and uncertainty surrounding international pursuits.

Restructuring costs for severance benefits were $73 for the year ended January 31, 2016 . The Company reported $58 of this expense in "Cost of sales" and $15 in "Research and development expenses" in the Consolidated Statements of Income and Comprehensive Income. This restructuring plan was completed during fiscal 2016 fourth quarter and there were no unpaid costs at January 31, 2016 .

NOTE 13 SHARE-BASED COMPENSATION

At January 31, 2017 , the Company had two shareholder approved share-based compensation plans, which are described below. The compensation cost and related income tax benefit for these plans were as follows:

	For the years ended January 31,		
	2017	2016	2015
Share-based compensation cost	**$ 3,071**	$ 2,311	$ 4,213
Tax benefit	**1,103**	819	1,504

Share-based compensation cost capitalized as part of inventory is not significant.

Equity Compensation Plans
The Company reserved shares of its common stock for issuance to directors, officers, employees, and certain advisors of the Company through incentive stock options and non-statutory stock options, stock appreciation rights, stock awards, restricted stock, restricted stock units (RSUs), and performance awards to be granted under the Amended and Restated 2010 Stock Incentive Plan (the Plan) which was approved by shareholders on May 22, 2012 . The aggregate number of shares initially available for grant under the Plan was 2,000,000 . As of January 31, 2017 , the number of shares available for grant under the Plan was 1,080,240 . Option exercises under the Plan are settled in newly issued common shares.

The Plan is administered by the Personnel and Compensation Committee of the Board of Directors (the Committee), consisting of two or more independent directors of the Company. Subject to the provisions set forth in the Plan, all of the members of the Committee shall be non-employee members of the Board of Directors. The Committee determines the option exercise prices and the term of each grant. The Committee may accelerate the exercisability of awards under the Plan or extend the term of such awards to the extent allowed by the Plan to a maximum term of ten years. Two types of awards were granted under the Plan in fiscal 2017, stock options and restricted stock units.

Stock Option Awards
The Company granted 274,200 non-qualified stock options during fiscal 2017 . Options are granted with exercise prices not less than the market value of the Company's common stock at the date of grant. The stock options vest over a four -year period and expire after five years. Options contain retirement and change-in-control provisions that may accelerate the vesting period. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model. The Company uses historical data to estimate option exercises, employee terminations, and volatility within this valuation model.

The weighted average assumptions used for the Black-Scholes option pricing model by grant year are as follows:

	For the years ended January 31,		
	2017	2016	2015
Risk-free interest rate	**1.05%**	1.33%	1.32%
Expected dividend yield	**3.33%**	2.59%	1.53%
Expected volatility factor	**32.61%**	36.81%	38.65%
Expected option term (in years)	**4.00**	3.75	4.00
Weighted average grant date fair value	**$ 3.05**	$ 4.77	$ 9.18

(Dollars in thousands, except per-share amounts)

Outstanding stock options as of January 31, 2017 and activity for the year then ended are presented below:

	Number of options	Weighted average exercise price	Aggregate intrinsic value	Weighted average remaining contractual term (years)
Outstanding, January 31, 2016	**925,950**	**$ 28.44**		
Granted	**274,200**	**15.61**		
Exercised	**—**	**—**		
Forfeited	**(4,125)**	**25.41**		
Expired	**(205,125)**	**30.03**		
Outstanding, January 31, 2017	**990,900**	**$ 24.58**	**$ 3,867**	**2.55**
Outstanding exercisable, January 31, 2017	**422,158**	**$ 30.24**	**$ 361**	**1.41**
Options vested, or expected to vest, January 31, 2017	**990,900**	**$ 24.58**	**$ 3,867**	**2.55**

The intrinsic value of a stock award is the amount by which the fair value of the underlying stock exceeds the exercise price of the award. The total intrinsic value of options exercised was $0 , $172 , and $1,467 during the years ended January 31, 2017 , 2016 , and 2015 , respectively. The total fair value of options vested was $1,323 , $1,755 , and $2,144 during the years ended January 31, 2017, 2016, and 2015. As of January 31, 2017 , the total unrecognized compensation cost for non-vested awards was $1,612 , net of the effect of estimated forfeitures. This amount is expected to be recognized over a weighted average period of 1.91 years.

Restricted Stock Unit Awards

The Company granted 70,947 time-vested RSUs to employees during the year ended January 31, 2017 . The fair value of a time-vested RSU is measured based upon the closing market price of the Company's common stock on the day prior to the date of grant. Time-vested RSUs will vest if, at the end of the three -year period, the employee remains employed by the Company. RSUs contain retirement and change-in-control provisions that may accelerate the vesting period. Dividends are cumulatively earned on the time-vested RSUs over the vesting period and are forfeited if such RSUs do not vest.

Activity for time-vested RSUs under the Plan in fiscal 2017 was as follows:

	Number of restricted stock units	Weighted average grant date fair value
Outstanding, January 31, 2016	**81,926**	**$ 25.53**
Granted	**70,947**	**15.94**
Vested	**(19,208)**	**32.85**
Forfeited	**(6,936)**	**23.14**
Outstanding, January 31, 2017	**126,729**	**$ 19.19**
Cumulative dividends, January 31, 2017	**5,003**	

The Company also granted performance-based RSUs during the year ended January 31, 2017 . The exact number of performance shares to be issued will vary from 0% to 150% of the target award, depending on the Company's actual performance over the three -year period in comparison to the target award. The target awards for the fiscal 2015, 2016 and 2017 grants are based on return on equity (ROE), which is defined as net income divided by the average of beginning and ending shareholders' equity for the fiscal year. The performance-based RSUs will vest if, at the end of the three -year performance period, the Company has achieved certain performance goals and the employee remains employed by the Company. Performance-based RSUs contain retirement and change-in-control provisions that may accelerate the vesting period. Dividends are cumulatively earned on performance-based RSUs over the vesting period and are forfeited if such RSUs do not vest.

The fair value of the performance-based restricted stock units is based upon the closing market price of the Company's common stock on the day prior to the grant date. The number of restricted stock units granted is based on 100% of the target award. The number of RSUs that will vest is determined by the estimated ROE target over the three -year performance period. The estimated performance factor used to estimate the number of restricted stock units expected to vest is evaluated quarterly. The number of restricted stock units issued at the vesting date will be based on actual results.

(Dollars in thousands, except per-share amounts)

Activity for performance-based RSUs under the Plan in fiscal 2017 was as follows:

	Number of restricted stock units expected to vest	Weighted average grant date fair value
Outstanding, January 31, 2016	**66,068**	**$ 25.65**
Granted	**72,950**	**15.61**
Vested	**(29,162)**	**32.85**
Forfeited	**(1,178)**	**17.66**
Performance-based adjustment	**37,841**	**15.94**
Outstanding, January 31, 2017	**146,519**	**$ 16.78**
Cumulative dividends, January 31, 2017	**5,103**	

The weighted average grant date fair values of the time-based and performance-based RSUs by grant year are as follows:

	For the years ended January 31,		
	2017	2016	2015
Weighted average grant date fair value: time-based RSUs	**$ 15.94**	$ 19.25	$ 29.69
Weighted average grant date fair value: performance-based RSUs	**$ 15.61**	$ 20.09	$ 32.75

The total intrinsic value of RSUs vested (or converted to shares) was $754 , $1,437 , and $0 during the years ended January 31, 2017, 2016, and 2015, respectively. The total fair value of RSUs vested (or converted to shares) was $761 , $1,411 , and $0 , during the years ended January 31, 2017, 2016, and 2015, respectively. 273,248 outstanding RSUs with a weighted average term of 1.95 years and an aggregate intrinsic value of $6,845 at January 31, 2017 are expected to vest. None of the outstanding RSUs are vested as of January 31, 2017. The total unrecognized compensation cost for nonvested RSU awards at January 31, 2017 was $2,713 net of the effect for estimated forfeitures. This amount is expected to be recognized over a weighted average period of 1.95 years.

Deferred Stock Compensation Plan for Directors

The Company reserved 100,000 shares of its common stock for issuance to certain members of its Board of Directors under the Deferred Stock Compensation Plan for Directors of Raven Industries, Inc. (the Director Plan). The Director Plan is administered by the Personnel and Compensation Committee of the Board of Directors. Under the Director Plan, any non-employee director receives a grant of a number of stock units as deferred compensation to be converted into common stock after retirement from the Board of Directors and may elect to have a specified percentage of their annual retainer converted to stock units. Under the Director Plan, a stock unit is the right to receive one share of the Company's common stock as deferred compensation, to be distributed from an account established by the Company in the name of the non-employee director. Stock units have the same value as a share of common stock but cannot be sold. Stock units are a component of the Company's equity.

Stock units granted under the Director Plan vest immediately and are expensed at the date of grant. When dividends are paid on the Company's common shares, stock units are added to the directors' balances and a corresponding amount is removed from retained earnings. The intrinsic value of a stock unit is the fair value of the underlying shares.

Outstanding stock units as of January 31, 2017 and changes during the year then ended are presented below:

(Dollars in thousands, except per-share amounts)

	Number of stock units	Weighted average price
Outstanding, January 31, 2016	**93,734**	**$ 20.82**
Granted	**18,750**	**19.20**
Deferred retainers	**3,125**	**19.20**
Dividends	**2,681**	**19.68**
Converted into common shares	**(19,641)**	**18.88**
Outstanding, January 31, 2017	**98,649**	**$ 20.82**

NOTE 14 **NET INCOME PER SHARE**

Basic net income per share is computed by dividing net income by the weighted average common shares and stock units outstanding. Diluted net income per share is computed by dividing net income by the weighted average common and common equivalent shares outstanding which includes the shares issuable upon exercise of employee stock options (net of shares assumed purchased with the option proceeds), stock units, and restricted stock units outstanding. Performance share awards are included in the diluted calculation based upon what would be issued if the end of the most recent reporting period was the end of the term of the award.

Certain outstanding options and restricted stock units were excluded from the diluted net income per-share calculations because their effect would have been anti-dilutive under the treasury stock method. The options and restricted stock units excluded from the diluted net income per share calculation were as follows:

	For the years ended January 31,		
	2017	2016	2015
Anti-dilutive options and restricted stock units	**884,099**	1,107,733	781,988

The computation of earnings per share is presented below:

	For the years ended January 31,		
	2017	2016	2015
Numerator:			
Net income attributable to Raven Industries, Inc.	**$ 20,191**	$ 4,776	$ 31,733
Denominator:			
Weighted average common shares outstanding	**36,142,416**	37,237,717	36,859,026
Weighted average stock units outstanding	**100,019**	86,745	69,484
Denominator for basic calculation	**36,242,435**	37,324,462	36,928,510
Weighted average common shares outstanding	**36,142,416**	37,237,717	36,859,026
Weighted average stock units outstanding	**100,019**	86,745	69,484
Dilutive impact of stock options and RSUs	**129,480**	75,481	174,784
Denominator for diluted calculation	**36,371,915**	37,399,943	37,103,294
Net income per share - basic	**$ 0.56**	$ 0.13	$ 0.86
Net income per share - diluted	**$ 0.56**	$ 0.13	$ 0.86

NOTE 15 **BUSINESS SEGMENTS AND MAJOR CUSTOMER INFORMATION**

The Company's operating segments, which are also its reportable segments, are defined by their product lines which have been generally grouped based on technology, manufacturing processes, and end-use application. The Company's reportable segments are Applied Technology Division, Engineered Films Division, and Aerostar Division. Raven Canada, SBG, Raven GmbH, Raven Australia, and Raven Brazil are included in the Applied Technology Division. Vista and AIS are included in the Aerostar Division. Separate financial information is available and regularly evaluated by the Company's chief operating decision-maker, the President and Chief Executive Officer, in making resource allocation decisions for the Company's reportable segments. Segment information is reported consistent with the Company's management reporting structure.

Applied Technology designs, manufactures, sells, and services innovative precision agriculture products and information management tools that help growers reduce costs, save time, and improve farm yields around the world. Their product families include field computers, application controls, GPS-guidance and assisted-steering systems, automatic boom controls, injection systems, yield monitoring controls, planter and seeder controls, and an integrated real-time kinematic (RTK) and information platform called Slingshot™. Applied Technology services include high-speed, in-field internet connectivity and cloud-based data management.

The Company's Engineered Films Division manufactures high-performance plastic films and sheeting for major markets throughout the United States and abroad. An important part of this business is highly technical, engineered geomembrane films that protect environmental resources through containment linings and coverings for energy, agriculture, construction, and industrial markets.

Aerostar designs and manufactures proprietary products including high-altitude balloons, tethered aerostats, and radar processing systems. These products can be integrated with additional third-party sensors to provide research, communications, and situational awareness to government and commercial customers. Aerostar's product lines such as manufacturing military parachutes and electronics manufacturing services were phased out during fiscal 2016 as the Company focused its growth strategy on its proprietary products and largely completed its exit of contract manufacturing operations.

Through Vista and AIS, Aerostar pursues potential product and support services contracts for agencies and instrumentalities of the U.S. government and to foreign governments as Direct Commercial Sales and Foreign Military Sales through the U.S. Government. Vista positions the Company to meet the global demand for lower-cost detection and tracking systems used by government agencies.

The Company measures the performance of its segments based on their operating income excluding administrative and general expenses. The accounting policies of the operating segments are the same as those described in Note 1 *Summary of Significant Accounting Policies* . Other income, interest expense, and income taxes are not allocated to individual operating segments, and assets not identifiable to an individual segment are included as corporate assets.

(Dollars in thousands, except per-share amounts)

Business segment information is as follows:

	For the years ended January 31,		
	2017	2016	2015
APPLIED TECHNOLOGY DIVISION			
Sales	**$ 105,217**	$ 92,599	$ 142,154
Operating income [(a)(e)]	**26,643**	18,319	34,557
Assets [(b)]	**67,911**	65,490	88,764
Capital expenditures	**1,017**	664	3,478
Depreciation and amortization	**3,828**	4,428	5,569
ENGINEERED FILMS DIVISION			
Sales	**$ 138,855**	$ 129,465	$ 166,634
Operating income [(e)]	**22,966**	17,892	21,802
Assets [(b)]	**133,309**	134,942	140,023
Capital expenditures	**2,768**	10,780	8,241
Depreciation and amortization	**8,580**	7,735	6,096
AEROSTAR DIVISION			
Sales	**$ 34,113**	$ 36,368	$ 80,772
Operating income [(c)(e)]	**(1,560)**	(14,801)	8,983
Assets [(b)]	**23,515**	32,689	59,274
Capital expenditures	**547**	941	2,799
Depreciation and amortization	**1,720**	3,297	3,474
INTERSEGMENT ELIMINATIONS			
Sales			
Applied Technology Division	**$ (1)**	$ (8)	$ (231)
Engineered Films Division	**(789)**	(195)	(652)
Aerostar Division	**—**	—	(10,524)
Operating income [(e)]	**(12)**	91	163
Assets	**(69)**	(57)	(148)
REPORTABLE SEGMENTS TOTAL			
Sales	**$ 277,395**	$ 258,229	$ 378,153
Operating income [(e)]	**48,037**	21,501	65,505
Assets	**224,666**	233,064	287,913
Capital expenditures	**4,332**	12,385	14,518
Depreciation and amortization	**14,128**	15,460	15,139
CORPORATE & OTHER			
Operating (loss) from administrative expenses [(f)]	**$ (19,624)**	$ (17,110)	$ (21,704)
Assets [(b)(d)]	**76,843**	65,624	74,960
Capital expenditures	**464**	661	2,523
Depreciation and amortization	**1,308**	1,676	2,230
TOTAL COMPANY			
Sales	**$ 277,395**	$ 258,229	$ 378,153
Operating income	**28,413**	4,391	43,801
Assets	**301,509**	298,688	362,873
Capital expenditures	**4,796**	13,046	17,041
Depreciation and amortization	**15,436**	17,136	17,369

[(a)] *The fiscal year ended January 31, 2016 includes gains of $611 on disposal of assets related to the exit of contract manufacturing operations.*

[(b)] *Certain facilities owned by the Company are shared by more than one reporting segment. Beginning with fiscal year 2016 all facilities are reported as an asset based on the segment that acquired the asset as we believe this better reflects total assets of the business segment. In prior fiscal years (which have not been recast in this table), the book value of certain shared facilities was allocated across reporting segments based on usage. Expenses and costs related to these facilities including depreciation expense, are allocated and reported in each reporting segment's operating income for each fiscal year presented.*

[(c)] *The fiscal year 2017 includes inventory write-downs of $2,278 for Vista as a result of discontinuing sales activities for a specific radar product line within its business. The fiscal year ended January 31, 2016 includes pre-contract cost write-offs of $2,933 , a goodwill impairment loss of $11,497 , a long-lived asset impairment loss of $3,826 , and a $2,273 reduction of an acquisition-related contingent liability for Vista as a result of lower financial expectations for net sales and operating income.*

[(d)] *Assets are principally cash, investments, deferred taxes, and other receivables.*

[(e)] *At the segment level, operating income does not include an allocation of general and administrative expenses.*

[(f)] *At the segment level, operating income does not include an allocation of general and administrative expenses and, as a result, general and administrative expenses are reported as "Operating (loss) from administrative expenses" in Corporate & Other.*

(Dollars in thousands, except per-share amounts)

No customers accounted for 10% or more of consolidated sales in fiscal 2017 or 2016 . Sales to a customer of the Engineered Films segment accounted for 14% of consolidated sales in fiscal 2015 and accounted for 5% of consolidated accounts receivable at January 31, 2015 .

Substantially all of the Company's long-lived assets are located in the United States. Foreign sales are attributed to countries based on location of the customer. Net sales to customers outside the United States were as follows:

	For the years ended January 31,		
	2017	2016	2015
Canada	**$ 13,969**	$ 11,789	$ 14,432
Europe	**13,924**	10,526	8,243
Latin America	**3,402**	2,676	9,921
Other foreign sales	**4,233**	2,858	4,239
Total foreign sales	**35,528**	27,849	36,835
United States	**241,867**	230,380	341,318
	$ 277,395	$ 258,229	$ 378,153

NOTE 16 **SUBSEQUENT EVENTS**

The Company has evaluated events up to the filing date of this Annual Report on Form 10-K and concluded that no subsequent events have occurred that would require recognition or disclosure in the Notes to the Consolidated Financial Statements.

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, under the supervision of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of January 31, 2017. Disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)), are our controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Based on this evaluation, our CEO and CFO concluded that our disclosure controls and procedures were not effective as of January 31, 2017 due to the material weaknesses in our internal control over financial reporting described in "Management’s Report on Internal Control Over Financial Reporting" appearing in Part II. Item 8 of this Annual Report on Form 10-K (Form 10-K) (Management's Report on Internal Control Over Financial Reporting).

Notwithstanding the existence of the material weaknesses described in Management's Report on Internal Control Over Financial Reporting, management has concluded that the consolidated financial statements included in this Form 10-K present fairly, in all material respects, our consolidated financial position, results of operations and cash flows for the periods presented herein in conformity with accounting principles generally accepted in the United States of America.

Management’s Report on Internal Control Over Financial Reporting

Management's report and the report of the Company's independent registered public accounting firm are included in Part II, Item 8. of this Form 10-K captioned "Management's Report on Internal Control Over Financial Reporting" and "Report of Independent Registered Public Accounting Firm", respectively, and are incorporated herein by reference.

Management's Remediation Initiatives

The Company is actively engaged in the planning for, and implementation of, remediation efforts to address the underlying causes of the control deficiencies that gave rise to the material weaknesses. These remediation efforts, summarized below, which are in the process of being implemented, are intended to address the identified material weaknesses and to enhance our overall financial reporting control environment.

With the oversight of the Company's Audit Committee, management is taking steps intended to address the underlying causes of the material weaknesses identified in Management's Report on Internal Control Over Financial Reporting primarily through the following remediation activities:

- Controls relating to the risk assessment in response to the risks of material misstatement
  - During the fourth quarter of fiscal 2017, we engaged a third-party independent registered public accounting firm to help remediate the identified material weaknesses and complete an assessment of our internal controls framework.
  - We are adding or redesigning specific controls and procedures to proactively address opportunities to augment and enhance controls identified through this assessment.
  - We are establishing an independent internal audit function and hiring additional accounting and internal audit staff to improve the management of risks to the enterprise.
- Controls over accounting for goodwill and long-lived assets, including finite-lived intangible assets
  - We are redesigning our specific procedures and controls associated with the identification of the proper unit of account.
  - We are developing an enhanced risk assessment evaluation for the reporting unit for which a goodwill impairment analysis is being conducted.
  - We are redesigning our controls associated with the development of a more precise revenue forecast for use in interim and annual impairment tests. For Aerostar, this specifically includes more precise contract-based revenue assumptions.
  - We are redesigning our controls associated with all significant assumptions, model and data used in management's estimates relevant to assessing the valuation of goodwill and long-lived assets, including finite-lived intangible assets.
  - We have engaged third-party valuation experts to evaluate and enhance the processes and procedures we are establishing or enhancing.
- Completeness and accuracy of accounting for income taxes
  - We are redesigning specific processes and controls to augment the review of significant or unusual transactions by finance leadership to ensure that the relevant tax accounting implications are identified and considered.
  - We have engaged third-party tax accounting resources to assist in review and analysis of tax matters associated with significant or unusual transactions.
  - Our new Director of Taxation has begun re-evaluating our tax models and designing and implementing multiple reconciliations to ensure the Company's tax provision is properly reconciled and rolled-forward.
- Controls over the existence of inventories, specifically controls to monitor that inventory subject to the cycle count program was counted at the frequency levels and accuracy rates required under the Company's policy, and the controls to verify existence of inventory held at third-party locations
  - We have begun redesigning and enhancing our cycle count procedure to monitor the completeness and accuracy of cycle count results and establish specific accountability for investigation and analysis of variances.
  - We have begun redesigning and enhancing controls, including those over the completeness and accuracy of underlying information, to monitor count dates for each item by location. This will be reviewed annually to ensure that each item was counted the appropriate number of times in accordance with the cycle count policy.
  - We are redesigning and implementing enhanced controls including those over the completeness and accuracy of underlying information to calculate and monitor the historical 12-month rolling accuracy of cycle counts.
  - During the fourth quarter of fiscal 2017, we completed a full physical inventory count for locations subject to the cycle count program and will continue to do so annually until the completeness and accuracy of the cycle count program has been validated. Also during the fourth quarter of fiscal 2017, we completed a full physical inventory count of third-party locations and will conduct a full physical count at such locations each quarter until we have completed the transfer of the vast majority of inventory held at third-party locations to Company-owned facilities.

- Controls over the completeness and accuracy of spreadsheets and system-generated reports used in internal control over financial reporting
    - We have begun designing new controls for the identification and assessment of the completeness and accuracy of spreadsheets and system-generated reports used within the Company’s internal control over financial reporting.
    - We have begun adding or redesigning controls to require both an evaluation and evidence of that evaluation of the completeness and accuracy of all spreadsheets and system-generated reports used in internal control over financial reporting and the preparation of the financial statements and related footnote disclosures.
    - We will maintain evidence of a baseline evaluation of completeness and accuracy for every system-generated report determined to be a key report for which it is possible to maintain a baseline test.
    - We will periodically re-baseline system-generated reports whether they are changed or not in accordance with our redesigned procedures and controls over financial reporting.
    - We will establish a process for evaluating and documenting the completeness and accuracy of all other spreadsheets and system-generated reports that cannot be baselined, including spreadsheets prepared or reviewed by management.

Although we have implemented several remediation actions, we are still in the process of implementing certain actions and validating the impact of such actions. These remediation actions are subject to ongoing review by management, as well as oversight by the Audit Committee of our Board of Directors. Although we plan to complete this remediation process as diligently as possible, we cannot, at this time, estimate when such remediation may occur, and our initiatives may not prove successful in remediating the material weaknesses. Management may determine to enhance other existing controls and/or implement additional controls as the implementation progresses. It will take time to determine whether the additional controls we are implementing will be sufficient and functioning as designed to accomplish their intended purpose; accordingly, these material weaknesses may continue for a period of time. While the Audit Committee of our Board of Directors and Executive management are closely monitoring this implementation, until the remediation efforts discussed herein, including any additional remediation efforts that management identifies as necessary, are complete, tested, and determined to be effective, we will not conclude that the material weaknesses have been remediated. In addition, we may need to incur incremental costs associated with this remediation, primarily due to the engagement of external accounting and tax experts to validate and support remediation activities and the implementation and validation of improved accounting and financial reporting procedures.

We are committed to improving our internal control over financial reporting and processes and intend to proactively review and improve our financial reporting controls and procedures incorporating best practices and leveraging external resources to facilitate periodic evaluations of our internal control over financial reporting. As we continue to evaluate and work to improve our internal control over financial reporting, we may take additional measures to address control deficiencies or modify certain of the remediation measures described above.

Changes in Internal Control over Financial Reporting

As described above under "Management's Remediation Initiatives," there were changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended January 31, 2017 that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

Management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors or potential fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within our Company have been detected.

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

ITEMS 10, 11, 12, 13 and 14. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE; EXECUTIVE COMPENSATION; SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS; CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE; AND PRINCIPAL ACCOUNTING FEES AND SERVICES

The Company will file a definitive proxy statement with the Securities and Exchange Commission pursuant to Regulation 14A under the Securities Exchange Act of 1934 (the Proxy Statement) relating to the Company's 2017 Annual Meeting of Shareholders. Information required by Items 10 through 14 will appear in the Proxy Statement and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULE

LIST OF DOCUMENTS FILED AS PART OF THIS REPORT

Financial Statements
See PART II, Item 8.

Financial Statement Schedule
Schedule II - Valuation and Qualifying Accounts for the years ended January 31, 2017, 2016, and 2015; included on page 83.

All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable and therefore have been omitted.

Exhibits
See index to Exhibits on the following page.

ITEM 16. FORM 10-K SUMMARY

None.

Exhibit Number	Description
2(a)	Agreement and Plan of Merger and Reorganization, dated as of November 3, 2014, by and among Raven Industries, Inc., Infinity Acquisition, Inc., Integra Plastics, Inc. and Nikole Mulder, as the Shareholder Representative (incorporated herein by reference to Exhibit 2.1 of the Company's Form 8-K filed November 7, 2014).
3(a)	Articles of Incorporation of Raven Industries, Inc. and all amendments thereto (incorporated herein by reference to the corresponding exhibit of the Company's 10-K for the year ended January 31, 1989).
3(b)	Amended and Restated Bylaws of Raven Industries (incorporated herein by reference to Exhibit B of the Company's definitive Proxy Statement filed April 12, 2012).
4(a)	Raven Industries, Inc. Amended and Restated 2010 Stock Incentive Plan filed on June 8, 2015 as Exhibit 4.1 of Raven Industries, Inc. Registration Statement on Form S-8, and incorporated herein by reference.
10.1	Amended and Restated Employment Agreement between Raven Industries, Inc. and Daniel A. Rykhus dated as of March 29, 2017 and filed herewith as Exhibit 10.1. †
10.2	Amended and Restated Employment Agreement between Raven Industries, Inc. and Steven E. Brazones dated as of March 29, 2017 and filed herewith as Exhibit 10.2. †
10.3	Form of Schedule A to Employment Agreement, revised effective January 1, 2016, between Raven Industries, Inc. and the following executive officers: Stephanie Herseth Sandlin, Janet L. Matthiesen, Brian E. Meyer, and Anthony D. Schmidt filed herewith as Exhibit 10.3. †
10(a)	Amended and Restated Change in Control Agreements between Raven Industries, Inc. and the following senior executive officers: Stephanie Herseth Sandlin, Anthony D. Schmidt, Brian E. Meyer, and Janet L. Matthiesen dated as of March 28, 2016 (incorporated herein by reference to Exhibit 10.1 of the Company's 10-K filed March 29, 2016). †
10(b)	Amended and Restated Change in Control Agreements between Raven Industries, Inc. and the following senior executives: Lon E. Stroschein and Scott W. Wickersham dated as of March 28, 2016 (incorporated herein by reference to Exhibit 10.2 of the Company's 10-K filed March 29, 2016). †
10(c)	Employment Agreement between Raven Industries, Inc. and Anthony D. Schmidt dated as of February 1, 2012 (incorporated herein by reference to Exhibit 10.1 of the Company's 8-K filed February 1, 2012). †
10(d)	Raven Industries, Inc. 2000 Stock Option and Compensation Plan adopted May 24, 2000 (incorporated herein by reference to Exhibit A of the Company's definitive Proxy Statement filed April 19, 2000). †
10(e)	Raven Industries, Inc. Deferred Compensation Plan for Directors adopted May 23, 2007 (incorporated herein by reference to Exhibit 10.1 of the Company's 8-K filed May 24, 2007). †
10(f)	Change in Control Agreement between Raven Industries, Inc. and Anthony D. Schmidt dated February 1, 2012 (incorporated herein by reference to Exhibit 10.3 of the Company's 8-K filed February 1, 2012). †
10(g)	Change in Control Agreement between Raven Industries, Inc. and Janet L. Matthiesen (incorporated herein by reference to Exhibit 10.3 of the Company's 8-K filed April 20, 2012). †
10(h)	Credit Agreement dated April 15, 2015, by and between Raven Industries, Inc. and JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian Administrative Agent, JPMorgan Chase Bank National Association, as Administrative Agent, and JP Morgan Securities LLC and Wells Fargo Securities, LLC as Joint Bookrunners and Joint Lead Arrangers (incorporated herein by reference to Exhibit 10.1 of the Company's Form 8-K filed April 16, 2015).
10(i)	Guaranty dated April 15, 2015, made by each of the Guarantors (Raven Industries, Inc., Aerostar International, Inc., Vista Research, Inc., and Integra Plastics, Inc.) in favor of JPMorgan Chase Bank, N.A. as Administrative Agent on behalf of the guaranteed parties (incorporated herein by reference to Exhibit 10.2 of the Company's Form 8-K filed April 16, 2015).
10(j)	Amended Employment Agreements between Raven Industries, Inc. and the following senior executive officers: Brian E. Meyer, Janet L. Matthiesen, and Stephanie Herseth Sandlin dated August 25, 2015 (incorporated herein by reference to Exhibit 10.1 of the Company's 8-K filed August 31, 2015). †
10(k)	Form of Non-Qualified Stock Option Agreement (incorporated herein by reference to Exhibit 10(r) of the Company's Form 10-Q filed June 4, 2012). †
10(l)	Form of Restricted Stock Unit Agreement (incorporated herein by reference to Exhibit 10(s) of the Company's Form 10-Q filed June 4, 2012). †
21	Subsidiaries of the Registrant.
23	Consent of Independent Registered Public Accounting Firm.
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

† Management contract or compensatory plan or arrangement.

SIGNATURES

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.

RAVEN INDUSTRIES, INC.

(Registrant)

By: /s/ DANIEL A. RYKHUS

Daniel A. Rykhus
President and Chief Executive Officer

Date: March 31, 2017

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

/s/ DANIEL A. RYKHUS
Daniel A. Rykhus
President and Chief Executive Officer
(principal executive officer) and Director

/s/ STEVEN E. BRAZONES
Steven E. Brazones
Vice President and Chief Financial Officer
(principal financial and accounting officer)

/s/ KEVIN T. KIRBY
Kevin T. Kirby
Director

/s/ THOMAS S. EVERIST
Thomas S. Everist
Chairman of the Board

/s/ MARC E. LEBARON
Marc E. LeBaron
Director

/s/ JASON M. ANDRINGA
Jason M. Andringa
Director

/s/ HEATHER A. WILSON
Heather A. Wilson
Director

/s/ MARK E. GRIFFIN
Mark E. Griffin
Director

Date: March 31, 2017

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

for the years ended January 31, 2017 , 2016 and 2015

(in thousands)

Column A	Column B	Column C		Column D	Column E
		Additions			
Description	Balance at Beginning of Year	Charged to Costs and Expenses	Charged to Other Accounts	Deductions From Reserves (1)	Balance at End of Year
Deducted in the balance sheet from the asset to which it applies:					
Allowance for doubtful accounts:					
Year ended January 31, 2017	$ 1,034	$ 380	$ —	$ 723	$ 691
Year ended January 31, 2016	319	1,066	—	351	1,034
Year ended January 31, 2015	319	211	19	230	319

Note :

(1) Represents uncollectable accounts receivable written off during the year, net of recoveries.

Exhibit 10.1

RAVEN INDUSTRIES, INC.

AMENDED AND RESTATED
EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (" Agreement "), effective as of March 29, 2017 (the " Effective Date "), is made by and between Raven Industries, Inc., a South Dakota corporation (the " Company ") and Daniel A. Rykhus (" Executive ").

Recitals

A. Executive and the Company are parties to that certain Senior Executive Officer Employment Agreement dated February 1, 2009, which currently remains in effect (the " Prior Employment Agreement "), pursuant to which the Company provides certain benefits to Executive.

B. Executive and the Company are parties to that certain Amended and Restated Change in Control Agreement dated as of March 28, 2016, which currently remains in effect (the " Change in Control Agreement "), pursuant to which the Company provides economic security for Executive after a specified change of control of the Company .

C. Executive and the Company desire to alter, amend and restate each of the Prior Employment Agreement and the Change in Control Agreement into this Agreement, and Executive and the Company desire this Agreement to replace and supersede in its entirety each of the Prior Employment Agreement and the Change in Control Agreement.

D. The severance compensation provisions of this Agreement are intended to comply with or be exempt from Section 409A of the Internal Revenue Code of 1986, as amended (the " Code "), the Treasury Regulations issued under Code Section 409A (the " 409A Regulations "), and other guidance issued under Code Section 409A, to prevent premature income taxes and a 20% penalty from applying to any severance compensation benefits earned by Executive under this Agreement.

E. The Company has entrusted and will continue to entrust Executive with certain "Confidential Information" (defined below) that is necessary for Executive to perform Executive's work for the Company, and the Company has entrusted and will continue to entrust Executive with the goodwill of and relationships with certain "Company Customers" (defined below). Executive agrees that, during employment and for a reasonable period of time after a "Termination of Employment" (defined below), the Company has the right through the restrictions in this Agreement on Executive's competitive activities, all of which Executive agrees are reasonable, lawful, and enforceable restrictions, to protect its Confidential Information, "Inventions" (defined below), goodwill of and relationships with Company Customers, and investment in its workforce.

NOW, THEREFORE , in consideration of the foregoing recitals, premises and mutual covenants herein contained, and intending to be legally bound hereby, Executive and the Company hereby agree as follows:

Exhibit 10.1

1. Definitions .

1.1 " Accountants " means an accounting firm selected by the Company, which is reasonably acceptable to Executive and whose consent shall not be unreasonably withheld.

1.2 " Board " means the Board of Directors of the Company.

1.3 " Cause " shall mean any of the following circumstances:

(a) Executive has committed willful misconduct that materially injures or causes a material loss to the Company and a material benefit to Executive or third parties, as for example, by embezzlement, appropriation of corporate opportunity, conversion of tangible or intangible corporate property or the making of agreements with third parties in which Executive or anyone related to or associated with Executive has a direct or indirect interest; or

(b) The reasonable good faith determination by the Company that Executive has materially violated any or all of Section 9 (Confidential Information), Section 11 (Conflicting Employment), Section 13 (Solicitation of Employees), Section 14 (Solicitation of Company Customers) or Section 15 (Covenant Not to Compete), which violation, if it is capable of cure by Executive, has continued for at least 10 days after the Company gives Executive a written notice describing such violation; *provided, however* ,

(c) For the avoidance of ambiguity, the term "Cause" does not include a termination occasioned by Executive's ill-advised good faith judgment or negligence in connection with the Company's business.

1.4 " Change in Control " shall mean:

(a) Any transaction or series of related transactions pursuant to which any person, entity or "group," within the meaning of Section 13(d) or 14(d) of the '34 Act becomes directly or indirectly the beneficial owner (within the meaning of Rule 13d-3 promulgated under the '34 Act) of 25% or more of the then outstanding shares of the Company's common stock; or

(b) Individuals who, as of the Effective Date, constitute the Board of Directors of the Company (the " Incumbent Board ") cease for any reason to constitute at least a majority of the Board, *provided* , that any person becoming a director subsequent to the Effective Date whose election, or nomination for election by the Company's shareholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board (other than an election or nomination of an individual whose initial assumption of office is in connection with an actual or threatened election contest relating to the election of the directors of the Company, under Rule 14a-12(c) of Regulation 14A promulgated under the '34 Act) shall be, for purposes of this Agreement, considered as though such person were a member of the Incumbent Board; or

(c) Approval by the shareholders of the Company of (A) a reorganization, merger or consolidation, in each case, with respect to which persons who were the shareholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than 50% of the combined voting power of the reorganized, merged or consolidated company's then outstanding voting securities entitled to vote generally in the election of directors of the reorganized, merged or consolidated company, or (B) a liquidation or dissolution of the Company or (C) the sale of all or substantially all of the assets of the Company. If Executive is employed by a Subsidiary, a sale of the assets, stock or business of the Subsidiary will not, in and of itself, be considered a “Change in Control” with respect to the Company.

1.5 “ CIC Protection Period ” shall mean the two (2) year period after the date a Change in Control occurs.

1.6 “ Conflicting Organization ” means any person or entity (regardless of its legal form), including Executive, that engages in, is actively planning to become engaged in, or desires to become engaged in (a) “Competitive Research” (defined below), and/or (b) researching, inventing, designing, manufacturing, developing, producing, marketing, promoting, selling, soliciting the sales of, supporting, providing, or servicing of a product or service that competes with or would compete with a “Company Product” (defined below).

1.7 “ Company Customers ” mean, during the 24-month period prior to the termination of Executive’s employment, any and all persons or entities (a) to whom or which the Company sold, solicited sales, supported, marketed, serviced, provided, or promoted Company Products, or (b) about whom or which Executive acquired Confidential Information or Trade Secrets.

1.8 “ Company Product ” means, during the 24-month period prior to the termination of Executive’s employment, any product or service that the Company researched, invented, designed, manufactured, developed, produced, marketed, promoted, sold, solicited sales of, supported, provided, or serviced in the course of its business. A Company Product also means any product or service with respect to which Executive received, used, or learned Confidential Information or Trade Secrets.

1.9 “ Competitive Research ” means any research or development of any kind or nature conducted by anyone other than the Company, including without limitation theoretical and applied research, which is intended for, or may be useful in, any aspect of researching, inventing, designing, manufacturing, developing, producing, marketing, promoting, selling, soliciting sales of, supporting, providing, or servicing of products or services that compete or would compete with any Company Product.

1.10 “ Confidential Information ” means any and all proprietary information relating to the Company’s business (and that of its affiliated entities) that derives and provides the Company with independent economic value from not being generally known or available to a Conflicting Organization or others that would obtain economic value from its disclosure or use. Here are the categories of materials that consist of or could consist of Confidential Information: Lists, names, and other information pertaining to Company Customers (including information developed, stored, and maintained in the Company’s customer relationship management system); sales and marketing plans, methods, and strategies for growing the Company’s business; methods and plans for how the Company engages in its business including the design of its deliverables, processes and process development activities for Company Customers; prospect lists and information; price lists and information; development projects; graphic designs; product research and development; financial statements, information and projections; management systems and procedures; supplier lists; sales techniques; computer programs, software, and software specifications and information; results of any research and development, whether complete or in process; any other information that the Company identifies as Confidential Information; a Company Customer's confidential information and trade secrets that it entrusts to the Company; and any and all originals and copies, pictures, facsimiles or other reproductions or recordings or any abstracts or summaries of the foregoing. Failure to mark any of the Confidential Information as confidential or proprietary will not affect its status as Confidential Information.

1.11 " Constructive Termination " shall mean Executive's voluntary Termination of Employment by reason of:

(a) a material, adverse change of Executive's responsibilities, authority, status, position, offices, titles or duties; *provided* , that (1) the fact that the Company is a subsidiary of an acquirer or a division of an acquirer, or (2) a change in Executive's employment from a Subsidiary to the Company or another Subsidiary shall in either event not, in and of itself, be considered a material change to the Employee's responsibilities, authority, status, position, offices, titles or duties and any appropriate change in title related to such events shall not, in and of itself, be considered a material change to Executive's responsibilities, authority, status, position, offices, titles or duties;

(b) a material adverse change in Executive's annual compensation or benefits;

(c) a requirement to relocate in excess of fifty (50) miles from Executive's then current place of employment without Executive's consent; or

(d) the material breach by the Company of any provision of this Agreement or failure to fulfill any other material contractual duties owed to Executive.

For the purposes of this definition, Executive's responsibilities, authority, status, position, offices, titles and duties are to be determined as of the Effective Date; *provided, however* , if such term is being used as it relates to the CIC Protection Period only, Executive's responsibilities, authority, status, position, offices, titles and duties are to be determined as of the day immediately before a Change in Control.

Notwithstanding the provisions of Sections 1.11(a), (b), (c) or (d) above, no voluntary Termination of Employment by Executive will constitute a Constructive Termination unless Executive shall have provided written notice to the Company within 90 days after an occurrence described in paragraphs Sections 1.11(a), (b), (c) or (d) above. The notice will (A) describe Executive's intention to voluntarily terminate Executive's employment; (B) state a Date of Termination that is least 30 days after Executive's delivery of the notice and (C) set forth in reasonable detail the conduct that Executive believes to be the basis for the Constructive Termination; and such Constructive Termination will take effect if the Company thereafter fails to correct such conduct (or commence action to correct such conduct and diligently pursue such correction to completion) within 30 days following the Company's receipt of such notice.

1.12 " Covered Group " means Executive, his spouse and eligible dependents.

1.13 " Covered Payments " means the payments or benefits provided or to be provided by the

Company or its affiliates to Executive or for Executive's benefit pursuant to the terms of this Agreement or otherwise.

1.14 " Date of Termination " shall mean:

(a) if Executive voluntarily terminates employment with the Company, the later of (i) a Date of Termination (if any) stated in Executive's Notice of Termination, or (ii) the date on which Executive delivers the Notice of Termination to the Company; or

(b) if Executive's employment is terminated by the Company, the date on which the Company delivers a Notice of Termination to Executive.

1.15 " Excise Tax " means the excise tax imposed under Section 4999 of the Code (or any successor provision thereto) or any similar tax imposed by state or local law or any interest or penalties with respect to such taxes.

1.16 " Inventions " means inventions, original works of authorship, developments, concepts, improvements or Trade Secrets, whether or not patentable or registrable under copyright or similar laws, which Executive may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time Executive is in the employ of the Company.

1.17 " Medical Plan " means any group hospital, medical or dental plan of the Company.

1.18 " Notice of Termination " means a written notice which shall indicate those specific Termination of Employment provisions in this Agreement that are being relied upon. Any Termination of Employment by the Company or Executive shall be communicated by a Notice of Termination.

1.19 " Parachute Payments " means parachute payments within the meaning of Section 280G of the Code.

1.20 " Prior Inventions " means inventions, original works of authorship, developments, improvements, and Trade Secrets which were made by Executive prior to Executive's employment with the Company.

1.21 " Termination of Employment " means, solely for purposes of this Agreement, Executive's "separation from service" from the Company, for any reason, voluntary or involuntary, other than Executive's death; *provided* , that this definition shall be interpreted to comply with the 409A Regulations, including without limitation the provisions that define an employer by reference to certain affiliated employers.

1.22 " Senior Executive Officer Policy " means the Company's Senior Executive Officer Policy attached here to as *Schedule A* and incorporated herein by reference.

1.23 " Short Term Incentive Plan " means the Company's Short Term Incentive Plan in effect as of the Effective Date and all amendments, modifications, and successors thereto.

1.24 "Subsidiary of the Company" means any corporation as to which the Company owns a majority of the voting securities.

1.25 "Third Party Confidential Information" means the confidentiality of information disclosed by third parties to the Company or Executive.

1.26 "Trade Secrets" means trade secrets as defined by the South Dakota Uniform Trade Secrets Act.

1.27 "'34 Act" means the Securities Exchange Act of 1934, as amended.

2. Employment. Subject to the terms and provisions set forth in this Agreement, Executive shall continue in the employ of the Company in a senior executive capacity, with such duties, powers and authority as are assigned to Executive from time to time by the Board, and with access to the Company's Confidential Information.

3. Agreement Term. This Agreement shall commence on the Effective Date and shall continue in effect until terminated in accordance with Section 6; *provided, however*, that each party shall remain bound by the terms and provisions of this Agreement that survive the termination in accordance with Section 20.10.

4. Compensation. As full compensation for Executive's services under this Agreement, Executive shall receive compensation as determined by the Board, and Executive shall be eligible to receive the fringe benefits, as are provided generally to all senior executive officers of the Company, that are listed on the Senior Executive Officer Policy. Subject to Section 20.1, the Company may change or terminate any fringe benefit provided by the Senior Executive Officer Policy from time to time while Executive is employed, so long as the change affects all senior executive officers.

5. Compensation and Fringe Benefits. Without limiting the provisions of Sections 6.2 and 6.3 of this Agreement and subject to Section 5.1(d), Executive shall be entitled to receive the benefits under this Section 5 if, upon the Termination of Employment or death of Executive, Executive has either (a) attained age 65 or (b) the sum of Executive's age (as of his nearest birthday) and years of service with the Company (to the nearest whole year) equals 80 or more.

5.1 Medical Benefits. Executive shall be entitled, at the Company's expense, to the following benefits in addition to any retirement benefits to which Executive may be entitled under any qualified or non-qualified retirement plan maintained by the Company:

(a) Until the later to die of Executive or his spouse, continuation of coverage under the Medical Plan for the Covered Group; *provided*, that if Executive and his spouse are divorced, the benefits for such spouse shall be discontinued; and further provided that if such spouse remarries after the death of Executive, such coverage shall continue for such spouse after the date of remarriage only if the spouse pays to the Company the group premium for such coverage. Prior to a member of the Covered Group becoming eligible for Medicare, the benefits to which that member of the Covered Group is entitled shall be at least equal to the benefits to which that member of the Covered Group would have been entitled under the Medical Plan as if Executive had not separated from service. Upon eligibility of a member of the Covered Group for Medicare, coverage provided by Medicare shall be primary and the Medical Plan shall provide additional benefits such that the total benefits (*i.e* ., Medicare and the Medical Plan) are at least equal to the benefits that members of the Covered Group would have been entitled under the Medical Plan on the Termination of Employment or at the death of Executive.

(b) Until the death of the last to die of Executive or his spouse, payment of uninsured medical expenses (including, but not limited to any deductibles and coinsurance) for Executive, his spouse and his eligible dependents up to an annual limit of 10% of Executive's highest annual compensation (salary and bonus) during any one of his last five calendar years of employment; *provided* , that if Executive and his spouse are divorced, or if such spouse remarries after the death of Executive, such coverage shall be discontinued for such spouse. The medical expenses to be covered and the timing of payment of such medical expenses shall be based on the terms of the Raven Industries, Inc. Executive Supplemental Medical Plan as in effect on the Termination of Employment or at the death of Executive. If such plan is not in effect on the Termination of Employment or at the death of Executive and has not been replaced by a similar plan, medical expenses reimbursed shall be those expenses that would be deductible under Section 213 of the Internal Revenue Code of 1986 as in effect at the date of this Agreement (without regard to any provisions making such expenses deductible only to the extent they exceed a percentage of adjusted gross income), and all such expenses shall be paid or reimbursed within 15 days after presentation of invoices.

(c) If for any reason after the date of Executive's retirement, Executive is not permitted to participate in any of the plans or programs referred to in Section 5.1(a) or (b), or if any such plans or programs are amended to provide lesser benefits or are terminated, the Company, at its sole expense, shall arrange to provide Executive with benefits substantially similar to those to which Executive would otherwise have been entitled but for such amendment or termination.

(d) If the Company, in good faith, determines that (i) Executive has violated any or all of Section 9 (Confidential Information), Section 11 (Conflicting Employment), Section 13 (Solicitation of Employees), Section 14 (Solicitation of Company Customers) or Section 15 (Covenant Not to Compete) of this Agreement, which violation, if it is capable of cure by Executive, has continued for at least 10 days after the Company gives Executive a written notice describing such violation or (ii) Executive, at any time while receiving the payments under this Section 5.1, is employed by or otherwise performs services in any other capacity for a Conflicting Organization in connection with or relating to Competitive Research or a product or service that competes with a Company Product, then in addition to any remedy the Company may be entitled at law or in equity, the Company may discontinue payments under this Section 5.1 upon written notice to Executive.

5.2 Tax Gross-Up . To the extent that all or any of the payments under Section 5.1 made in a calendar year are subject to federal, state, or local income tax, the Company shall pay to Executive (or his spouse if Executive is deceased or his estate if he is not survived by a spouse) a Gross-Up Amount before April 15 of the following year. The term " Gross-Up Amount " means an amount, after the payment of federal, state and local income tax on such amount, that is necessary to pay the federal, state and local income tax on the taxable payments for such calendar year. For purposes of determining the Gross-Up Amount, Executive shall be considered to pay federal, state and local income taxes at the highest marginal rate, net of the maximum reduction in federal income taxes that could be obtained from the deduction of state and local taxes.

6. Termination; Severance Payments .

6.1 At-Will Employment . Executive and the Company agree that Executive's employment is at-will and either Executive or the Company may terminate Executive's employment at any time, for any reason or no reason, and no provision contained herein shall affect the Company's ability to terminate Executive's employment at any time, with or without "Cause" (defined above). Nothing in this Agreement, the Company's 2010 Stock Incentive Plan, or any other plan or program of compensation or benefits in which Executive participates at the Company guarantees continued employment or creates an expectation of continued employment; *provided however* , that each party shall remain bound by the terms and provisions of this Agreement that survive the termination in accordance with Section 20.10.

6.2 Severance Compensation upon Termination of Employment by Company without Cause or by Executive's Constructive Termination . If, at any time outside of the CIC Protection Period (which is provided for in Section 6.3 below), there occurs: (a) except in the case of Executive's death, Executive's Termination of Employment by the Company without Cause or (b) Executive's Constructive Termination, then, subject to Executive continuing to fulfill his obligations under Sections 6.2(b), 6.5 and 12 hereof:

(a) The Company shall pay Executive any earned and accrued but unpaid installment of base salary through the Date of Termination at the rate in effect at the time Notice of Termination is given and all other unpaid amounts to which Executive is entitled as of the Date of Termination under any compensation plan or program of the Company, including, without limitation, all accrued vacation time; such payments to be made in a lump sum on or before the fifth day following the Date of Termination;

(b) In lieu of any further salary payments to Executive for periods subsequent to the Date of Termination, the Company shall pay to Executive an amount equal to the sum of (A) the product of (i) Executive's annual base salary in effect as of the Date of Termination and the target payment for that full year under the Short Term Incentive Plan (ii) and the number 2; plus (B) the target amount under the Short Term Incentive Plan on a prorated basis for the period of the Company's then current fiscal year which Executive is employed by the Company prior to the Date of Termination; such payment to be made in a lump sum on or before the 60th calendar day following the Date of Termination; *provided* , that no such payment will be made unless Executive has entered into and delivered to the Company the separation agreement and general release described in Section 6.5 below, and any period during which Executive may revoke or rescind such release and covenant has expired before that 60th day; and *provided further* , that if, as of the Date of Termination: (x) any payment due under this Section 6.2 is reasonably deemed by the Company to be "deferred compensation" (as defined in the 409A Regulations), (y) any portion of the payment due under this Section 6.2 would exceed the sum of the applicable limited separation pay exclusions as determined pursuant to the 409A Regulations and (z) Executive is treated as a specified employee (as defined in the 409A Regulations), then payment of such excess amount shall be delayed until the six-month anniversary of the Date of Termination. If Executive continues to perform any services (as an employee or otherwise) for the Company or a Subsidiary of the Company after the Date of Termination, such six-month period shall be measured from the date of Executive's "separation from service" as defined pursuant to the 409A Regulations; and

(c) Notwithstanding anything stated in any other agreement between the Company and Executive that may be construed to the contrary, the Company shall cause any unvested portion of Executive's restricted stock units, performance awards and any other equity awards granted to Executive under the Company's 2010 Stock Incentive Plan, as amended, to immediately vest in full to the extent not already vested. Any performance awards will vest at the target level.

6.3 Severance Compensation upon a Change in Control and Termination of Employment . If (a) a Change in Control of the Company shall have occurred while Executive is an employee of the Company and (b) during the CIC Protection Period there occurs: (i) except in the case of Executive's death, Executive's Termination of Employment by the Company without Cause, or (ii) Executive's Constructive Termination, then, subject to Executive continuing to fulfill his obligations under Sections 6.3(b), 6.5 and 12 hereof:

(a) The Company shall pay Executive any earned and accrued but unpaid installment of base salary through the Date of Termination at the rate in effect at the time Notice of Termination is given and all other unpaid amounts to which Executive is entitled as of the Date of Termination under any compensation plan or program of the Company, including, without limitation, all accrued vacation time; such payments to be made in a lump sum on or before the fifth day following the Date of Termination;

(b) In lieu of any further salary payments to Executive for periods subsequent to the Date of Termination, the Company shall pay to Executive an amount equal to the product of (A) the sum of (i) Executive's annual base salary in effect as of the Date of Termination and (ii) the target amount under the Short Term Incentive Plan for the year in which such Date of Termination occurs and (B) the number 2.5; such payment to be made in a lump sum on or before the 45th calendar day following the Date of Termination; *provided* , that no such payment will be made unless Executive has executed and delivered to the Company the release and covenant described in Section 6.5 below, and any period during which Executive may revoke or rescind such release and covenant has expired before that 45th day; and *provided further* , that if, as of the Date of Termination: (x) any payment due under this Section 6.3 is reasonably deemed by the Company to be "deferred compensation" (as defined in the 409A Regulations), (y) any portion of the payment due under this Section 6.3 would exceed the sum of the applicable limited separation pay exclusions as determined pursuant to the 409A Regulations and (z) Executive is treated as a specified employee (as defined in the 409A Regulations), then payment of such excess amount shall be delayed until the six-month anniversary of the Date of Termination (or the date of Executive's death, if earlier). If Executive continues to perform any services (as an employee or otherwise) for the Company or a Subsidiary of the Company after the Date of Termination, such six-month period shall be measured from the date of Executive's "separation from service" as defined pursuant to the 409A Regulations;

(c) If a Change in Control of the Company shall have occurred while Executive is an employee of the Company and Executive dies during the CIC Protection Period while still an employee of the Company, the amount specified in Section 6.3(a) shall be paid by the Company to Executive's estate; and such deceased Executive's spouse and eligible dependents shall be entitled to all of the benefits specified in the Senior Executive Officer Policy as if such deceased Executive had delivered a Notice of Termination to the Company immediately prior to such death;

(d) In addition to the benefits provided for in Section 5 (and regardless if Executive is eligible to receive such benefits pursuant to terms and conditions of Section 5), Executive shall, effective on the Date of Termination, be deemed to be qualified and vested in all respects for the post-retirement benefits of the Senior Executive Officer Policy, regardless of whether Executive otherwise then satisfies the requirements for early retirement under the Senior Executive Officer Policy; *provided* , that the post-retirement benefits specified under this Section 6.3(d) shall (i) not become payable until Executive reaches age 65, unless such benefits are otherwise payable due to Executive's eligibility for early retirement benefits under the terms of the Senior Executive Officer Policy as of the Date of Termination; and (ii) not be provided to the extent such benefits are provided to Executive by another employer at no cost to Executive; and

(e) Notwithstanding anything stated in any other agreement between the Company and Executive that may be construed to the contrary, the Company shall cause any unvested portion of Executive's restricted stock units, performance awards and any other equity awards granted to Executive under the Company's 2010 Stock Incentive Plan, as amended, to immediately vest in full to the extent not already vested. Any performance awards will vest at the target level.

6.4 Termination of Employment by the Company for Cause or by Executive's Voluntary Termination or Death . Upon Executive's Termination of Employment by the Company for Cause or Executive's voluntary Termination of Employment which does not constitute Constructive Termination, or if Executive dies outside of the CIC Protection Period but while still an employee of the Company, then the Company shall pay to Executive or Executive's estate, in the case of Executive's death, any earned and accrued but unpaid installment of base salary through the Date of Termination or Executive's death at the rate in effect at the time Notice of Termination is given or at Executive's death and all other unpaid amounts to which Executive is entitled as of the Date of Termination or Executive's death under any compensation plan or program of the Company, including, without limitation, all accrued vacation time; such payments to be made in a lump sum on or before the fifth day following the date of the Date of Termination or Executive's death. Other than the compensation payments and/or benefits provided for in Section 5 or this Section 6.4, neither Executive nor Executive's estate is entitled to any other compensation payments or benefits upon the Termination of Employment for the events described in this Section 6.4.

6.5 Release Agreement . The Company's obligations to provide the payments and benefits in Section 6.2 or 6.3 are conditioned on Executive entering into a separation agreement and general release in the form attached as *Exhibit A* to this Agreement, with such changes as may be reasonably required to reflect changes in applicable law or circumstances subsequent to the date first above written; and the Company shall deliver such separation agreement and general release to Executive within 10 calendar days after the earlier of (i) the Date of Termination or (ii) the Company's receipt of a Notice of Termination asserting a Constructive Termination.

7. Limitation on Parachute Payments .

7.1 Limitation . Notwithstanding anything stated in this Agreement, or any other plan, arrangement or agreement to the contrary (including without limitation the Company's 2010 Stock Incentive Plan, as amended), if any of the Covered Payments constitute Parachute Payments and would, but for this Section 7 be subject to the Excise Tax, then the Covered Payments shall be payable either (i) in full or (ii) reduced to the minimum extent necessary to ensure that no portion of the Covered Payments is subject to the Excise Tax, whichever of the foregoing (i) or (ii) results in Executive's receipt on an after-tax basis of the greatest amount of benefits after taking into account the applicable federal, state, local and foreign income, employment and excise taxes (including the Excise Tax).

7.2 Reduction . The Covered Payments shall be reduced in a manner that maximizes Executive's economic position. In applying this principle, the reduction shall be made in a manner consistent with the requirements of Section 409A of the Code, and where two economically equivalent amounts are subject to reduction by payable at different times, such amounts shall be reduced on a pro rata basis but not below zero.

7.3 Accountants . Any determination required under this Section 7 shall be made in writing in good faith by the Accountants, which shall provide detailed supporting calculations to the Company and Executive as required by the Company or Executive. The Company and Executive shall provide the Accountants with such information and documents as the Accountants may reasonably request in order to make a determination under this Section 7. The Company shall be responsible for all fees and expenses of the Accountants.

7.4 Overpayment or Underpayment . It is possible that after the determinations and selections made pursuant to this Section 7 Executive will receive Covered Payments that are in the aggregate more than the amount provided under this Section 7 (" Overpaymen t") or less than the amount provided under this Section 7 (" Underpayment ").

7.4.1 In the event that: (A) the Accountants determine, based upon the assertion of a deficiency by the Internal Revenue Service against either the Company or Executive which the Accountants believe has a high probability of success, that an Overpayment has been made or (B) it is established pursuant to a final determination of a court or an Internal Revenue Service proceeding that has been finally and conclusively resolved that an Overpayment has been made, then Executive shall pay any such Overpayment to the Company.

7.4.2 In the event that: (A) the Accountants, based upon controlling precedent or substantial authority, determine that an Underpayment has occurred or (B) a court of competent jurisdiction determines that an Underpayment has occurred, any such Underpayment will be paid promptly by the Company to or for the benefit of Executive.

8. Policies and Procedures . Executive agrees to comply with all policies and procedures of the Company for its employees.

9. Confidential Information.

9.1 Confidential Information. Executive acknowledges that in the course of employment, Executive will learn of, have access to, and use the Company's Confidential Information. Executive recognizes that the Company's business depends to a considerable extent on other information pertaining to new business opportunities, patent protection, Inventions, trademarks, copyrighted material, and Trade Secrets respecting formulas, processes, methods, plans, apparatus, products, improvements, and applications. Executive also recognizes that the Company's business depends to a considerable extent on information pertaining to Company Customers and prospective Company Customers, and the Company's systems, policies, methods of operation, procedures, manuals; and pricing and other non-public information. The Company shall retain ownership of all rights to all of its Confidential Information and other business information described herein. Confidential Information shall not include any information that (i) is or becomes available to the public without a breach of this Agreement or right of the Company, or (ii) is lawfully obtained from a third party without breach of this Agreement or any other agreement, or (iii) if Executive is required by law to disclose Confidential Information in response to a valid order of a court or a government agency, Employee will promptly notify the Company and Executive will reasonably cooperate with the Company's attempts to obtain a protective order.

The Company may have an obligation to third parties to maintain Third Party Confidential Information. Executive agrees that all Third Party Confidential Information obtained by Executive during the course of employment, whether such information is communicated in written or verbal form, and whether such information is in recorded or unrecorded form and whether it is maintained solely at the Company's offices or elsewhere or maintained by Executive solely or in combination with other information will be held in strict confidentiality.

Executive shall not at any time or in any manner, either directly or indirectly, divulge or disclose the Company's Confidential Information or Third Party Confidential Information to any other person or entity except as required by Executive's duties to the Company, and Executive shall not use such Confidential Information or Third Party Confidential Information in competition with the Company or for the gain or benefit of Executive or any other person or company. Executive shall not utilize or divulge any Confidential Information or Third Party Confidential Information to any other person or company, regardless of whether such knowledge or information is in recorded form or otherwise, absent the express written consent of an authorized representative of the Company.

Following a Termination of Employment, Executive shall not remove or retain any document, copy of document, client or prospect files, or any other recording, in any type or form relating to any Confidential Information, other business information of the Company, or Third Party Confidential Information. Upon a Termination of Employment, or sooner at the request of the Board, Executive shall turn over to the Company all notes, memoranda, drawings, documents, apparatus, product and material related to the employment, it being agreed that such items are the property of the Company. The obligations of Executive under this entire section shall survive the termination of this Agreement and Executive's employment.

9.2 Former Employer Information. Executive agrees that Executive will not, during Executive's employment with the Company, improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer or other person or entity with whom Executive has an agreement or duty to keep such information or Secrets confidential, if any, and that Executive will not bring onto the premises of the Company any proprietary information belonging to any such employer, person or entity unless consented to by such employer, person or entity.

10. Inventions.

10.1 Inventions Retained and Licensed. Executive has attached hereto, as *Schedule B* to this Agreement, a list describing the Prior Inventions, which belong to Executive, which relate to the Company's proposed business, products or research and development, and which are not assigned to the Company hereunder; or, if no such list is attached, Executive represents that there are no such Prior Inventions. If in the course of Executive's employment with the Company, Executive incorporates into a Company product, process or machine a Prior Invention owned by Executive or in which Executive has an interest, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use and sell such Prior Invention as part of or in connection with such product, process or machine.

10.2 Assignment of Inventions. Executive agrees that Executive will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assign to the Company, or its designee, all Executive's right, title, and interest in and to any and all Inventions, including the copyright thereon. Executive further acknowledge that all original works of authorship which are made by Executive (solely or jointly with others) within the scope of Executive's employment and which are protectable by copyright are "works made for hire," as that term is defined in the United States Copyright Act.

10.3 Maintenance of Records. Executive agrees to keep and maintain adequate and current records of all Inventions made by Executive (solely or jointly with others) during the term of Executive's employment with the Company. The records will be in the form of notes, sketches, drawings, and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times.

10.4 Patent and Copyright Registrations. Executive agrees to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, trademarks or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company the sole and exclusive right, title and interest in and to such Inventions, and any copyrights, patents, trademarks or other intellectual property rights relating thereto. Executive further agrees that Executive's obligation to execute or cause to be executed, when it is in Executive's power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of Executive's mental or physical incapacity or for any other reason to secure Executive's signature to apply for or to pursue any application for any United States or foreign patents or copyright, trademark or other registrations covering Inventions assigned to the Company as above, then Executive hereby irrevocably designates and appoints Company and its duly authorized officers and agents as Executive's agent and attorney in fact, to act for and in Executive's behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, or copyright, trademark or other registrations thereon with the same legal force and effect as if executed by Executive.

10.5 Intellectual Property Litigation or Prosecution . Executive further agrees that Executive will appear and give evidence in any suits, arbitrators, interferences or other legal proceedings which arise in connection with matters covered or intended to be covered in this Section 10. All expenses (including reimbursement for any loss of salary or wages from another employer if Executive is no longer employed by the Company) in connection with the matters covered or intended to be covered in this Section 10 shall be borne by the Company and any legal proceedings in connection with such matters shall be conducted by attorneys chosen by the Company.

11. Conflicting Employment . Executive agrees that, during the term of Executive's employment with the Company, Executive will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of Executive's employment, nor will Executive engage in any other activities that conflict with Executive's obligations to the Company. If there is any possibility of a conflict or perceived conflict, Executive understands that it is Executive's obligation and duty to present the potential conflict to the Company and the Company can decide, in its discretion, whether a conflict exists.

12. Returning Company Documents . Executive agrees that, upon a Termination of Employment, or sooner at the request of the Board, Executive will deliver to the Company (and will not keep in my possession or deliver to anyone else) any and all devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items developed by Executive pursuant to Executive's employment with the Company or otherwise belonging to the Company or that constitutes Confidential Information or Third Party Confidential Information. Upon the termination of Executive's employment, Executive agrees to sign and deliver to the Company the "Termination Certification" attached hereto as *Exhibit B* to this Agreement. The Company's obligations to provide the payments and benefits in Section 6.2 or 6.3 are conditioned on Executive, among other requirements, signing the Termination Certification.

13. Solicitation of Employees . Executive agrees that Executive shall not, for a period of two (2) years immediately following the Termination of Employment, either directly or indirectly, on Executive's own behalf or in the service or on behalf of others, solicit, recruit or attempt to persuade any person to terminate such person's employment with the Company, whether or not such person is a full-time employee or whether or not such employment is pursuant to a written agreement or is at-will.

14. Solicitation of Company Customers . Executive agrees that Executive shall not, for a period of two (2) years immediately following the Termination of Employment, directly or indirectly market, sell, or provide, or attempt to market, sell, or provide to any Company Customer any product or service of a Conflicting Organization that competes with any Company Product.

15. Covenant Not to Compete . Executive agrees that Executive shall not, for a period of two (2) years immediately following the Termination of Employment, be employed by or otherwise perform services in any other capacity for a Conflicting Organization in connection with or relating to Competitive Research or a product or service that competes with a Company Product.

16. Enforcement .

16.1 Jurisdiction . Executive agrees that any dispute or controversy arising out of or relating to any interpretation, construction, performance or breach of this Agreement or any other dispute between the parties shall be brought in the Circuit Court, Second Judicial Circuit, Minnehaha County, South Dakota. Executive consents to the personal jurisdiction of such circuit court.

16.2 Remedies . The restrictions in this Agreement are not greater than reasonably necessary to protect the Company's legitimate interests; are reasonable in the sense that they are not injurious, harmful, or prejudicial to the public or public interest; and are not unduly harsh, burdensome, or oppressive on Executive because they are reasonable in time and area and do not restrict Executive's right to pursue Executive's livelihood. Executive agrees that it would be impossible or inadequate to measure and calculate the Company's damages from any breach of the covenants set forth in this Agreement, and that a breach of such covenants could cause irreparable injury to the Company. Accordingly, Executive agrees that if Executive breaches any of such covenants, the Company will have available, in addition to any other right or remedy available, the right to obtain an injunction from a court of competent jurisdiction restraining such breach or threatened breach and to specific performance of any such provision of this Agreement. Executive further agrees that no bond or other security shall be required in obtaining such equitable relief and Executive hereby consents to the issuance of such injunction and to the ordering of specific performance.

17. Usage of Name . Executive agree that Executive will provide, and that the Company may similarly provide, a copy of this Agreement to any business or enterprise (i) which Executive may directly or indirectly be employed by or own, manage, operate, finance, join, participate in the ownership, management, operation, financing, control or control of, or (ii) with which Executive may be connected with as an officer, director, employee, partner, principal, agent, representative, consultant or otherwise, or in connection with which Executive may use or permit Executive's name to be used.

18. Tolling Provision . The parties agree that the duration of the restrictions in Sections 13, 14 and 15 shall be extended for a period equal to the duration of any breach of such covenants by Executive to the maximum extent permitted by applicable law.

19. Successors .

19.1 Executive . This Agreement shall inure to the benefit of and be enforceable by Executive's personal and legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If Executive should die while any amounts are still payable to Executive hereunder, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to Executive's devisee, legatee or other designee or, if there be no such designee, to Executive's estate.

19.2 The Company . The Company will require any successor or assign (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, by agreement in form and substance satisfactory to Executive, expressly, absolutely and unconditionally to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. As used in this Agreement, "Company" shall mean the Company as hereinbefore defined and any successor or assign to its business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section 19.2 or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law. If at any time during the term of this Agreement Executive is employed by a Subsidiary of the Company, (1) "Company" as used in this Agreement shall in addition include such Subsidiary, (2) the Company agrees that it shall pay or shall cause such Subsidiary to pay any amounts owed to Executive pursuant to Sections 4, 5 and 6 hereof and (3) any transfer of Executive's employment between the Subsidiary and the Company or another Subsidiary shall not, in and of itself, be deemed a Termination of Employment.

20. Miscellaneous .

20.1 Modification to the Senior Executive Officer Policy . After the Termination of Employment or death of Executive, so long as a member of the Covered Group (as defined herein) is receiving any fringe benefit on the Senior Executive Officer Policy hereunder, the Company may not change or terminate any fringe benefit on the Senior Executive Officer Policy in a manner that would reasonably be expected to adversely affect any member of the Covered Group's interests without the prior written consent of Executive (or all members of the Covered Group, in the case of Executive's death).

20.2 No Obligation to Mitigate Damages; No Effect on Other Contractual Rights . Executive shall not be required to mitigate damages or the amount of any payment provided for under this Agreement by seeking other employment or otherwise, nor shall the amount of any payment provided for under this Agreement be reduced by any compensation earned by Executive as the result of employment by another employer after the Date of Termination.

20.3 No Effect on Other Contractual Rights . The provisions of this Agreement, and any payment provided for hereunder, shall not reduce any amounts otherwise payable, or in any way diminish Executive's existing rights, including post-retirement benefits or any other rights which would accrue solely as a result of the passage of time, under any benefit plan, employment agreement or other contract, Company policy, plan or arrangement (except for the Prior Employment Agreement and the Change in Control Agreement, which are terminated pursuant to Section 20.9).

20.4 Withholding . The Company shall deduct, from any payment made under this Agreement, any Federal or state taxes required by law to be withheld from such payment.

20.5 Miscellaneous . No provisions of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by Executive and such officer of the Company as may be specifically designated by the Board. No term or condition of this Agreement shall be deemed to have been waived, nor shall there be any estoppel to enforce any provision hereof, except by a written instrument executed by the party charged with waiver or estoppel. The Company's delay, waiver, or failure to enforce any of the terms of this Agreement or any similar agreement with any other of its employees shall not constitute a waiver of its rights hereunder with respect to other violations of this Agreement or any other agreement.

20.6 Notices . For purposes of this Agreement, notices and all other communications provided for in the Agreement shall be in writing and shall be deemed to have been duly given when delivered or three days after mailing by United States registered mail, return receipt requested, postage prepaid, as follows:

To the Company:

Raven Industries, Inc.

205 East 6th Street

P.O. Box 5107

Sioux Falls, South Dakota 57117

Attention: President

If to Executive:

(Address currently on file with the Company)

or such other address as either party may have furnished to the other in writing in accordance herewith, except that notices of change of address shall be effective only upon receipt.

20.7 Severability . Executive acknowledges that the provisions, restrictions and time limitations contained in Sections 9, 13, 14, 15 and 16 are reasonable and properly required for the adequate protection of the business of the Company. If any provision of this Agreement is unreasonable or unenforceable under applicable law, the validity or enforceability of the remaining provisions shall not be affected. To the extent any provision of this Agreement is judicially determined to be unenforceable or unreasonable in any respect, a court of competent jurisdiction may reform any such provision to make it reasonable and enforceable to the extent permitted by applicable law. It is the desire of Executive and the Company that the provisions of this Agreement shall be interpreted, where possible, to sustain their legality and enforceability and protect the Company's legally protectable business interests.

20.8 Counterparts . This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

20.9 Entire Agreement . This Agreement constitutes the entire agreement between the parties and supersedes the Prior Employment Agreement and the Change in Control Agreement and all other prior agreements and understandings between the parties with respect to the subject matter hereof; *provided* , that this Agreement shall not affect or reduce any benefit to which Executive shall be otherwise entitled under the Company's 2010 Stock Incentive Plan, as amended, or any other plan, agreement or policy of or with the Company. No modification of or amendment to this Agreement, nor any waiver of any rights under this agreement, will be effective unless in writing signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will to affect the validity or scope of this Agreement.

20.10 Survival. Any Termination of Employment shall not affect the continuing operation and effect of Sections 5 through 20 hereof, which shall survive the Termination of Employment and continue in full force and effect with respect to the Company and Executive. Sections 5 through 20 hereof shall also continue in force and effect if Executive's duties, compensation, title, or location of work for the Company change after this Agreement becomes effective, and any such change will not terminate or invalidate this Agreement or affect or impair its validity and enforceability.

20.11 Fees and Expenses. The Company shall pay all fees and expenses (including attorney's fees) which Executive may incur as a result of the Company's contesting the validity, enforceability or Executive's interpretation of, or determinations under, this Agreement, regardless of whether the Company or Executive is successful in such contest.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Employment Agreement as of the date and year first above written.

RAVEN INDUSTRIES, INC.
By: /s/ STEPHANIE HERSETH SANDLIN
Stephanie Herseth Sandlin,
General Counsel and Vice President of Corporate Development

EXECUTIVE:
By: /s/ DANIEL A. RYKHUS
Daniel A. Rykhus

Schedule A

POLICIES AND PROCEDURES **NO. RS-01A**
DATE: 1 DECEMBER 2010 (revised 1 January 2016)
SUBJECT: SENIOR EXECUTIVE OFFICER BENEFITS

In addition to all of the fringe benefits provided to salaried employees, Senior Executive Officers, Chief Executive Officer and (Chief Financial Officer, hired before 12/1/14) will have the following additional benefits:

1. Supplemental health insurance benefits for the officer and his dependents up to 6.5% of the total current base salary.
2. The Chief Executive Officer will receive a social membership to the Minnehaha Country Club.
3. Health club membership or equivalent in home exercise equipment.
4. Inclusion in the Group Life Insurance and A.D. & D. policy at 2.0 times annualized base salary on February 1st each year. The group life insurance policy is updated annually on March 1st of each year, and the benefit will be limited to the maximum benefit offered by the current life insurance carrier.
5. Individual term policies may be required to reach the coverage levels in Number 5 above.

   Those policies are funded by the company for the period of time employed by the company. The officer will have the option to convert or continue at officer's expense upon termination or retirement.
6. This section applies only to Senior Executive Officers elected before February 1, 2004. A second-to-die life policy will be provided to the Chief Financial Officer in the amount of $300,000. Premiums on this policy will be paid by the company until the policy is fully funded (the point where dividends of the policy are sufficient to pay the entire premium) provided that the officer is employed until "normal retirement" age or qualifies for "early retirement" in accordance with Raven policies and procedures.

   Upon the officer's retirement at the normal retirement age or if qualifying for early retirement in accordance with Raven Policies and Procedures the second-to-die life policy will be paid up by Raven at the time of the officer's retirement. The premium benefit for the paid up policy will be grossed up at the end of the calendar year.

   If the officer terminates employment before qualifying for either normal or early retirement the officer will have the option to continue the policy by paying the premiums or may exercise one of the conversion features available in the policy.
7. For Senior Executive Officers elected before February 1, 2004, long-term care insurance will be provided to the officer and officer's spouse.
8. Full pay for sick leave up to a point where disability insurance coverage begins. Disability insurance is 60% of base salary non-integrated with Social Security. Provisions of the actual policy will govern the exact amount of payments.
9. Two additional weeks of paid vacation in addition to the regular established vacation policy.
10. Physical examinations provided by the company will be given on a biennial basis to age 60 on individuals who are asymptomatic, annually if symptomatic. Above age 60 examinations will be annually.

11. Officer’s annual base salary will be grossed up at the end of the calendar year to compensate for any additional payroll and income tax burden created by the treatment of the officer’s benefits under numbers 1, 4, 5, 6, 7, and 10, above, as additional income.

12. Senior Executive Officer Retirement & Benefits

    This section applies only to Senior Executive Officers retiring after February 1, 2010. Benefits to officers retiring before that date will be governed by the policy in effect at retirement.

    Full retirement benefits will be available to any senior executive officer who retires between the ages of 65 and 70, or who chooses early retirement. Early retirement is defined as the first day of any month after the officer’s years of service, plus attained age equals or exceeds the sum of 80, or any date between then and age 65.

    Those benefits are:

(A) Continued retiree group hospital, medical and dental coverage for the officer, spouse and eligible dependent child(ren), as defined by the insurance carrier’s policy, until the officer attains the eligibility age for Medicare (presently age 65) or is eligible for Medicare due to disability. Premiums will be at the same rate available to active Senior Executive Officers.

If said officer dies prior to Medicare eligibility, coverage will continue on the same basis for spouse and/or eligible dependent child(ren) as long as spouse does not remarry and dependent child(ren) meets insurance carrier’s eligibility requirements.

When the officer becomes eligible for Medicare, the spouse is eligible for continued retiree group hospital, medical or dental coverage until the spouse becomes eligible for Medicare. Coverage for the spouse will terminate in the event the officer and spouse divorce or the spouse remarries after the death of the officer. Upon divorce or remarriage of spouse, the spouse would then be offered COBRA in compliance with Federal COBRA guidelines administered on a consecutive basis.

When the officer becomes eligible for Medicare, eligible dependent child(ren) are eligible for continued retiree group hospital, medical and dental coverage until the dependent no longer meets the definition of an eligible dependent as defined by the insurance carrier’s policy. Upon loss of dependent eligibility, COBRA will be offered in compliance with Federal COBRA guidelines administered on a consecutive basis.

(B) Upon eligibility for Medicare by either the officer or spouse, the officer and spouse will be provided supplemental hospital, medical, and prescription drug coverage to Medicare which would result in the same coverage that is provided to the full-time active officers of the company. This coverage, as well as group dental coverage, will continue for the rest of the officer’s and spouse’s life or until the spouse divorces said officer or remarries after the death of the officer. In the event the spouse divorces or remarries after death of officer, supplemental coverage will cease being paid by Raven and will be the responsibility of the former spouse.

In the event that eligible dependent child(ren) are eligible for Medicare, said dependent child(ren) will be provided supplemental hospital and medical coverage to Medicare which would result in the same coverage that is provided to the full-time active officers of the company. This coverage, as well as group dental coverage, will continue for the rest of the dependent’s life or as long as the dependent meets disability requirements.

(C) In the event that a retired officer marries/remarries, retiree benefits are only offered to spouses enrolled in benefits at the time of the Officer's retirement.

(D) Upon retirement, supplemental health insurance benefits for the officer and his dependents will be provided annually for the rest of the officer's and spouse's lives at an amount of up to 10% of the officer's highest total annual compensation (salary and bonus) during any one of the officer's last 5 years of employment with the company.

(E) For Senior Executive Officers elected before February 1, 2004, long-term care insurance will continue for the rest of the officer's and spouse's life. The spouse's coverage will be discontinued in the event an officer's spouse remarries after the death of an officer.

(F) To the extent retirement benefits are included in taxable income, retired Senior Executive Officers will be grossed up at the end of the calendar year to compensate for additional income and payroll tax burden.

Schedule B

LIST OF PRIOR INVENTIONS

AND ORIGINAL WORKS OF AUTHORSHIP

Title	Date	Identifying Number or Brief Description

<u>Exhibit A</u>

SEPARATION AGREEMENT AND GENERAL RELEASE

<u>Definitions</u> . All the words used in this Separation Agreement and General Release ("Agreement") have their plain meaning in ordinary English. Specific terms used in this Agreement have the following meanings:

1. Words such as "I" and "me" include both me and anyone who has or obtains any legal rights or claims against "Raven" (defined below) and the "Company" (defined below), and each of them, through me. My name is ________ .

2. "Raven" means Raven Industries, Inc.

3. The "Company" means Raven, and Raven's past and present parent, subsidiaries and affiliated entities, and all and each of the past and present Board of Directors, officials, managers, members, governors, agents, officers, directors, employees, shareholders, attorneys, committees, insurers, indemnitors, investors, successors and assigns of any and all of the foregoing entities.

<u>Background</u> .

1. My employment with Raven ended on ____________ (the "Separation Date"). I agree not to sign this Agreement prior to the end of my work day on the Separation Date.

2. I have been paid all of my accrued and unused paid time off and all other wages, salary, and monies due and owing to me through the Separation Date.

3. The purpose of this Agreement is to fully and finally release the Company from all of "My Claims" (as defined below) through my signing of this Agreement.

4. In exchange for "My Promises" (defined below), Raven has promised to do the following for me (all and each are "Raven's Promises") as long as I sign this Agreement and do not exercise my rights to revoke or rescind as set forth below.

5. I acknowledge and agree that I received this Agreement on the Separation Date and understand that I have 21 days from the Separation Date to decide whether to sign this Agreement. If I do not sign this Agreement within that timeframe, the offer contained within this Agreement will expire.

6. I acknowledge and agree that I will not sign this Agreement prior to the end of work day on the Separation Date or this Agreement will be null and void.

7. This Agreement is being entered into pursuant to that certain Amended and Restated Employment Agreement between Raven and me dated ____________ (the "Employment Agreement").

Raven's Promises .

1. **Severance Pay.** Raven agrees to pay me the amounts and benefits specified in the Employment Agreement at the times specified therein, less any deductions Raven is required to make or believes in good faith it is required to make from that amount.

My Claims . The claims I am releasing below (all and each are "My Claims") include all of my rights to any relief of any kind from the Company through the date on which I sign this Agreement, to the fullest extent permitted by law, including but not limited to:

1. All claims I have now, whether or not I know about or suspect the claims;

2. All claims for attorney's fees, costs, and disbursements;

3. All rights and claims under the Age Discrimination in Employment Act ("ADEA"), Older Workers Benefit Protection Act ("OWBPA"), the South Dakota Human Relations Act ("SDHRA"), Americans with Disabilities Act ("ADA"), Title VII of the Civil Rights Act of 1964 ("Title VII"), Family and Medical Leave Act ("FMLA"), and any other federal, state, local law, rule, or regulation regarding discrimination and retaliation;

4. All claims arising out of my employment and my separation from employment with Raven including, but not limited to, breach of contract, wrongful termination, illegal termination, termination in violation of public policy, breach of an implied contract, breach of covenant of good faith and fair dealing, defamation, promissory estoppel, violation of state or federal leave laws, equal pay laws, invasion of privacy, fraud, retaliation, and intentional or negligent infliction of emotional distress;

5. All claims for any other alleged unlawful employment practices arising out of or relating to my employment or my separation from employment; and

6. All claims for any other form of pay, compensation or remuneration that is not provided in this Agreement.

My Promises .

1. In exchange for Raven's Promises (described above), I hereby fully and finally release to the maximum extent permitted by law all of "My Claims" (described above) against the Company, including for example rights and claims under the ADA, SDHRA, OWBPA, ADEA, FMLA, and Title VII. I will not bring any lawsuits against the Company except if necessary to enforce the provisions of this Agreement. The money and benefits that I will receive as set forth in this Agreement as Raven's Promises are full and fair payment for the release of My Claims. The Company does not owe me anything in addition to what I will receive under this Agreement. The money and benefits that I am receiving under this Agreement as Raven's Promises have a value that is greater than anything else to which I am entitled. Specifically excluded from my waiver and release of claims are claims or disputes that: (1) by law cannot be released in a private agreement (such as workers' compensation claims); (2) arise after the effective date of this Agreement; or (3) relate to the obligations of the parties under this Agreement.

2. In exchange for Raven's Promises, I promise to successfully transition my work responsibilities. I will provide Raven with a list of any documents and return the work computers or other devices that

require password(s) necessary to access such devices or documents. I will cooperate with Raven and use my best efforts to be available, on a reasonable basis, to answer questions that may arise to achieve a smooth transition after the Separation Date. I also agree to be available to and cooperate with Raven and its counsel in connection with any investigation, administrative proceeding or litigation relating to any matter, occurring during my employment, in which I was involved or of which I have knowledge. I understand and agree that such cooperation includes, but is not limited to, making myself available to Raven and/or its counsel upon reasonable notice for: interviews and factual investigations; appearing to give testimony without requiring service of a subpoena or other legal process; volunteering to Raven or its counsel pertinent information; and turning over all relevant documents which are or may come into my possession.

Additional Agreements and Understandings .

1. **Non-Admission.** Except for the Company's obligations under the Employment Agreement, the Company does not admit that it is responsible or legally obligated to me, and in fact, the Company denies that it is responsible or legally obligated to me. I acknowledge that Raven's Promises described in this Agreement is sufficient consideration to support enforcement of this Agreement.

2. **Benefit Plans.** My and Raven's rights and obligations in any benefit plan in which I participated during my employment are governed by the applicable plan documents. Further, I am not releasing any rights I may have to be indemnified by Raven for acts or omissions as an employee, officer and/or director of Raven pursuant to any insurance policy, statute, or corporate change or bylaw provision by entering into this Agreement.

3. **Filing.** This Agreement does not prohibit me from filing an administrative complaint, or an administrative charge of discrimination with, or cooperating or participating in an investigation or proceeding conducted by, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, the Securities and Exchange Commission, or other federal or state regulatory or law enforcement agency ("Government Agencies"). If I filed or file such a charge or complaint, the payment and benefits described in this Agreement are in complete satisfaction of any and all claims in connection with such charge or complaint, and I am not entitled to any other monetary relief with respect to the claims released in this Agreement. *Provided,* I understand that this Agreement does not limit my right to receive an award for information provided to any Government Agencies.

4. **Property.** I have delivered to Raven any and all of its records and property in my possession or under my control, including without limitation manuals, books, passwords, blank forms, documents, letters, memoranda, notes, notebooks, passwords, reports, printouts, computer disks, flash drives or other digital storage media, source codes, data, tables or calculations and all copies thereof, documents that in whole or in part contain any trade secrets or confidential, proprietary or other secret information of Raven and all copies thereof. I have returned to Raven all equipment, laptop computers, iPads, iPhones, other cellular phones, BlackBerry devices, credit cards, security cards and keys, badges, and files and any other property belonging to Raven, including all copies of same, that were in my possession or control. I no longer possess or have within my control any of the aforementioned Raven property, information or belongings. I have not downloaded, diverted, or transferred in any manner any files or other data that are the property of Raven.

5. **Non-Disparagement.** I will not intentionally disparage the Company, its products, services, systems, and other matters pertaining to its business. The prohibitions of this paragraph do not apply to my legally protected communications or communications with the Equal Employment Opportunity Commission, the National Labor Relations Board, or any other Government Agencies.

6. **Confidentiality.** The terms and conditions of this Agreement are strictly confidential. I will not discuss or reveal the existence or the terms of this Agreement to any persons, entities, or organizations except as follows: (a) as required by law or court order; (b) by me to my immediate family; or (c) to my attorney, financial planner and accountant. I must ensure that any person or entity described in subsections (b) and (c), to whom such disclosures are made must, as a condition of such disclosure, agree to keep the terms of this Agreement strictly confidential. This confidentiality provision does not prohibit me from providing this Agreement to the Equal Employment Opportunity Commission, the National Labor Relations Board, or other Government Agencies.

7. **Remuneration.** I acknowledge and agree that I am not owed any remuneration or benefits from the Company other than the consideration identified within this Agreement including but not limited to wages, commissions, benefits, bonuses, vacation pay, sick pay, paid time off, stock, or any other incentives.

8. **Tax Indemnification.** I acknowledge that I have not relied on any tax advice provided by the Company and that, if necessary, I am responsible for properly reporting the payment and benefits received pursuant to this Agreement and paying any applicable taxes.

Rights to Counsel, Consider, Revoke, and Rescind .

1. I have been advised to consult with an attorney prior to executing the Agreement. Raven recommends that I consult with an attorney prior to signing this Agreement. I can freely choose to seek legal advice before signing this Agreement.

2. I have twenty-one (21) days to consider this Agreement, including my waiver of rights and claims of age discrimination and retaliation under the ADEA and OWBPA, beginning the date on which I received this Agreement. If I signed this Agreement, then for a period of seven (7) days following the day on which I signed it, I will be entitled to revoke this Agreement, and this Agreement will not become effective or enforceable until after the revocation period has expired. My waiver of claims in this Agreement does not include any claims that may arise after the date that I sign this Agreement.

3. To revoke my waiver(s), I must put the revocation in writing and deliver it to Raven by hand via ________ or mail it within the 7-day period. If I deliver the revocation by mail, it must be postmarked within seven (7) calendar days after the date on which I signed this Agreement; addressed to Raven, c/o __________and sent by certified mail, return receipt requested.

If I exercise my rights to revoke my waivers as provided above, this Agreement will be null and void. My employment will still end on the Separation Date, and I will not receive Raven's Promises in this Agreement.

Agreement Freely Entered Into .

I represent that I have voluntarily, and free from duress or undue coercion, made My Promises in this Agreement.

Severability .

If any provision of this Agreement is unenforceable under applicable law, the validity or enforceability of the remaining provisions will not be affected. To the extent any provision of this Agreement is judicially determined to be unenforceable, a court of competent jurisdiction may reform any such provision to make it enforceable. The provisions of this Agreement will, where possible, be interpreted to sustain their legality and enforceability.

Entire Agreement .

This Agreement, together with the Employment Agreement, are the final and complete agreements between Raven, the Company, and me with regard to the matters therein. Any modification of, or addition to, this Agreement must be in in writing and signed by the parties.

Successors and Assigns .

This Agreement will be binding upon and inure to the benefit of the successors and assigns of Raven, the Company, and me. I understand that I may not assign this Agreement.

Governing Law And Venue .

The parties agree that this Agreement shall be interpreted, construed, governed and enforced under and pursuant to the laws of the State of South Dakota. I irrevocably consent to the exclusive jurisdiction of courts in South Dakota for the purposes of any action arising out of or related to my employment, or any actions for temporary, preliminary, and permanent equitable relief.

Knowing and Voluntary Agreement .

I have read this Agreement carefully and understand all of its terms. I have had the opportunity to discuss this Agreement with my own attorney prior to signing it, and to make certain that I understand the meaning of the terms and conditions contained in this Agreement and fully understand the content and effect of this Agreement. In agreeing to sign this Agreement, I have not relied on any statements or explanations made by Raven, the Company, or all and each of their respective agents or attorneys except as set forth in this Agreement. I agree to abide by this Agreement.

Date___________________

____

[EMPLOYEE NAME]

Date____________________ RAVEN INDUSTRIES, INC.

By ____

Its ____

REST OF PAGE INTENTIONALLY LEFT BLANK

Exhibit B

TERMINATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items belonging to Raven Industries, Inc., its subsidiaries, or any of their respective successors or assigns (together, the "Company").

I further certify that I have complied and will continue to comply with all the terms of my Amended and Restated Employment Agreement with the Company (the "Employment Agreement"), including, without limitation, those pertaining to non-competition, non-solicitation, Confidential Information, and the reporting of any Inventions.

Without limiting the generality of the preceding paragraph, I will, in accordance with the Employment Agreement, preserve as confidential all Confidential Information (as defined in the Employment Agreement) and any Third Party Confidential Information (as defined in the Employment Agreement) that the Company has an obligation to maintain in confidence.

Dated:________________

____
Signature

____
Name of Employee (typed or printed)

Exhibit 10.2

RAVEN INDUSTRIES, INC.

AMENDED AND RESTATED
EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (" Agreement "), effective as of March 29, 2017 (the " Effective Date "), is made by and between Raven Industries, Inc., a South Dakota corporation (the " Company ") and **STEVEN E. BRAZONES** (" Executive ").

Recitals

A. Executive and the Company are parties to that certain Employment Agreement for Senior Management dated August 25, 2015, which currently remains in effect (the " Prior Employment Agreement "), pursuant to which the Company provides certain benefits to Executive.

B. Executive and the Company are parties to that certain Amended and Restated Change in Control Agreement dated as of March 28, 2016, which currently remains in effect (the " Change in Control Agreement "), pursuant to which the Company provides economic security for Executive after a specified change of control of the Company .

C. Executive and the Company desire to alter, amend and restate each of the Prior Employment Agreement and the Change in Control Agreement into this Agreement, and Executive and the Company desire this Agreement to replace and supersede in its entirety each of the Prior Employment Agreement and the Change in Control Agreement.

D. The severance compensation provisions of this Agreement are intended to comply with or be exempt from Section 409A of the Internal Revenue Code of 1986, as amended (the " Code "), the Treasury Regulations issued under Code Section 409A (the " 409A Regulations "), and other guidance issued under Code Section 409A, to prevent premature income taxes and a 20% penalty from applying to any severance compensation benefits earned by Executive under this Agreement.

E. The Company has entrusted and will continue to entrust Executive with certain "Confidential Information" (defined below) that is necessary for Executive to perform Executive's work for the Company, and the Company has entrusted and will continue to entrust Executive with the goodwill of and relationships with certain "Company Customers" (defined below). Executive agrees that, during employment and for a reasonable period of time after a "Termination of Employment" (defined below), the Company has the right through the restrictions in this Agreement on Executive's competitive activities, all of which Executive agrees are reasonable, lawful, and enforceable restrictions, to protect its Confidential Information, "Inventions" (defined below), goodwill of and relationships with Company Customers, and investment in its workforce.

NOW, THEREFORE , in consideration of the foregoing recitals, premises and mutual covenants herein contained, and intending to be legally bound hereby, Executive and the Company hereby agree as follows:

1. **Definitions** .

1.1 " Accountants " means an accounting firm selected by the Company, which is reasonably acceptable to Executive and whose consent shall not be unreasonably withheld.

1.2 " Board " means the Board of Directors of the Company.

1.3 " Cause " shall mean any of the following circumstances:

(a) Executive has committed willful misconduct that materially injures or causes a material loss to the Company and a material benefit to Executive or third parties, as for example, by embezzlement, appropriation of corporate opportunity, conversion of tangible or intangible corporate property or the making of agreements with third parties in which Executive or anyone related to or associated with Executive has a direct or indirect interest; or

(b) The reasonable good faith determination by the Company that Executive has materially violated any or all of Section 8 (Confidential Information), Section 10 (Conflicting Employment), Section 12 (Solicitation of Employees), Section 13 (Solicitation of Company Customers) or Section 14 (Covenant Not to Compete), which violation, if it is capable of cure by Executive, has continued for at least 10 days after the Company gives Executive a written notice describing such violation; *provided, however* ,

(c) For the avoidance of ambiguity, the term "Cause" does not include a termination occasioned by Executive's ill-advised good faith judgment or negligence in connection with the Company's business.

1.4 " Change in Control " shall mean:

(a) Any transaction or series of related transactions pursuant to which any person, entity or "group," within the meaning of Section 13(d) or 14(d) of the '34 Act becomes directly or indirectly the beneficial owner (within the meaning of Rule 13d-3 promulgated under the '34 Act) of 25% or more of the then outstanding shares of the Company's common stock; or

(b) Individuals who, as of the Effective Date, constitute the Board of Directors of the Company (the " Incumbent Board ") cease for any reason to constitute at least a majority of the Board, *provided* , that any person becoming a director subsequent to the Effective Date whose election, or nomination for election by the Company's shareholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board (other than an election or nomination of an individual whose initial assumption of office is in connection with an actual or threatened election contest relating to the election of the directors of the Company, under Rule 14a-12(c) of Regulation 14A promulgated under the '34 Act) shall be, for purposes of this Agreement, considered as though such person were a member of the Incumbent Board; or

(c) Approval by the shareholders of the Company of (A) a reorganization, merger or consolidation, in each case, with respect to which persons who were the shareholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than 50% of the combined voting power of the reorganized, merged or consolidated company's then outstanding voting securities entitled to vote generally in the election of directors of the reorganized, merged or consolidated company, or (B) a liquidation or dissolution of the Company or (C) the sale of all or substantially all of the assets of the Company. If Executive is employed by a Subsidiary, a sale of the assets, stock or business of the Subsidiary will not, in and of itself, be considered a "Change in Control" with respect to the Company.

1.5 " CIC Protection Period " shall mean the two (2) year period after the date a Change in Control occurs.

1.6 " Conflicting Organization " means any person or entity (regardless of its legal form), including Executive, that engages in, is actively planning to become engaged in, or desires to become engaged in (a) "Competitive Research" (defined below), and/or (b) researching, inventing, designing, manufacturing, developing, producing, marketing, promoting, selling, soliciting the sales of, supporting, providing, or servicing of a product or service that competes with or would compete with a "Company Product" (defined below).

1.7 " Company Customers " mean, during the 24-month period prior to the termination of Executive's employment, any and all persons or entities (a) to whom or which the Company sold, solicited sales, supported, marketed, serviced, provided, or promoted Company Products, or (b) about whom or which Executive acquired Confidential Information or Trade Secrets.

1.8 " Company Product " means, during the 24-month period prior to the termination of Executive's employment, any product or service that the Company researched, invented, designed, manufactured, developed, produced, marketed, promoted, sold, solicited sales of, supported, provided, or serviced in the course of its business. A Company Product also means any product or service with respect to which Executive received, used, or learned Confidential Information or Trade Secrets.

1.9 " Competitive Research " means any research or development of any kind or nature conducted by anyone other than the Company, including without limitation theoretical and applied research, which is intended for, or may be useful in, any aspect of researching, inventing, designing, manufacturing, developing, producing, marketing, promoting, selling, soliciting sales of, supporting, providing, or servicing of products or services that compete or would compete with any Company Product.

1.10 " Confidential Information " means any and all proprietary information relating to the Company's business (and that of its affiliated entities) that derives and provides the Company with independent economic value from not being generally known or available to a Conflicting Organization or others that would obtain economic value from its disclosure or use. Here are the categories of materials that consist of or could consist of Confidential Information: Lists, names, and other information pertaining to Company Customers (including information developed, stored, and maintained in the Company's customer relationship management system); sales and marketing plans, methods, and strategies for growing the Company's business; methods and plans for how the Company engages in its business including the design of its deliverables, processes and process development activities for Company Customers; prospect lists and information; price lists and information; development projects; graphic designs; product research and development; financial statements, information and projections; management systems and procedures; supplier lists; sales techniques; computer programs, software, and software specifications and information; results of any research and development, whether complete or in process; any other information that the Company identifies as Confidential Information; a Company Customer's confidential information and trade secrets that it entrusts to the Company; and any and all originals and copies, pictures, facsimiles or other reproductions or recordings or any abstracts or summaries of the foregoing. Failure to mark any of the Confidential Information as confidential or proprietary will not affect its status as Confidential Information.

1.11 " Constructive Termination " shall mean Executive's voluntary Termination of Employment by reason of:

(a) a material, adverse change of Executive's responsibilities, authority, status, position, offices, titles or duties; *provided* , that (1) the fact that the Company is a subsidiary of an acquirer or a division of an acquirer, or (2) a change in Executive's employment from a Subsidiary to the Company or another Subsidiary shall in either event not, in and of itself, be considered a material change to the Employee's responsibilities, authority, status, position, offices, titles or duties and any appropriate change in title related to such events shall not, in and of itself, be considered a material change to Executive's responsibilities, authority, status, position, offices, titles or duties;

(b) a material adverse change in Executive's annual compensation or benefits;

(c) a requirement to relocate in excess of fifty (50) miles from Executive's then current place of employment without Executive's consent; or

(d) the material breach by the Company of any provision of this Agreement or failure to fulfill any other material contractual duties owed to Executive.

For the purposes of this definition, Executive's responsibilities, authority, status, position, offices, titles and duties are to be determined as of the Effective Date; *provided, however* , if such term is being used as it relates to the CIC Protection Period only, Executive's responsibilities, authority, status, position, offices, titles and duties are to be determined as of the day immediately before a Change in Control.

Notwithstanding the provisions of Sections 1.11(a), (b), (c) or (d) above, no voluntary Termination of Employment by Executive will constitute a Constructive Termination unless Executive shall have provided written notice to the Company within 90 days after an occurrence described in paragraphs Sections 1.11(a), (b), (c) or (d) above. The notice will (A) describe Executive's intention to voluntarily terminate Executive's employment; (B) state a Date of Termination that is least 30 days after Executive's delivery of the notice and (C) set forth in reasonable detail the conduct that Executive believes to be the basis for the Constructive Termination; and such Constructive Termination will take effect if the Company thereafter fails to correct such conduct (or commence action to correct such conduct and diligently pursue such correction to completion) within 30 days following the Company's receipt of such notice.

1.12 " Covered Payments " means the payments or benefits provided or to be provided by the Company or its affiliates to Executive or for Executive's benefit pursuant to the terms of this Agreement or otherwise.

1.13 " Date of Termination " shall mean:

(a) if Executive voluntarily terminates employment with the Company, the later of (i) a Date of Termination (if any) stated in Executive's Notice of Termination, or (ii) the date on which Executive delivers the Notice of Termination to the Company; or

(b) if Executive's employment is terminated by the Company, the date on which the Company delivers a Notice of Termination to Executive.

1.14 " Excise Tax " means the excise tax imposed under Section 4999 of the Code (or any successor provision thereto) or any similar tax imposed by state or local law or any interest or penalties with respect to such taxes.

1.15 " Inventions " means inventions, original works of authorship, developments, concepts, improvements or Trade Secrets, whether or not patentable or registrable under copyright or similar laws, which Executive may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time Executive is in the employ of the Company.

1.16 " Notice of Termination " means a written notice which shall indicate those specific Termination of Employment provisions in this Agreement that are being relied upon. Any Termination of Employment by the Company or Executive shall be communicated by a Notice of Termination.

1.17 " Parachute Payments " means parachute payments within the meaning of Section 280G of the Code.

1.18 " Prior Inventions " means inventions, original works of authorship, developments, improvements, and Trade Secrets which were made by Executive prior to Executive's employment with the Company.

1.19 " Termination of Employment " means, solely for purposes of this Agreement, Executive's "separation from service" from the Company, for any reason, voluntary or involuntary, other than Executive's death; *provided* , that this definition shall be interpreted to comply with the 409A Regulations, including without limitation the provisions that define an employer by reference to certain affiliated employers.

1.20 " Senior Management Policy " means the Company's Senior Management Policy attached here to as *Schedule A* and incorporated herein by reference.

1.21 " Short Term Incentive Plan " means the Company's Short Term Incentive Plan in effect as of the Effective Date and all amendments, modifications, and successors thereto.

1.22 " Subsidiary of the Company " means any corporation as to which the Company owns a majority of the voting securities.

1.23 " Third Party Confidential Information " means the confidentiality of information disclosed by third parties to the Company or Executive.

1.24 " Trade Secrets " means trade secrets as defined by the South Dakota Uniform Trade Secrets Act.

1.25 " '34 Act " means the Securities Exchange Act of 1934, as amended.

2. Employment . Subject to the terms and provisions set forth in this Agreement, Executive shall continue in the employ of the Company in an executive capacity, with such duties, powers and authority as are assigned to Executive from time to time by the Board, and with access to the Company's Confidential Information.

3. Agreement Term . This Agreement shall commence on the Effective Date and shall continue in effect until terminated in accordance with Section 5; *provided, however* , that each party shall remain bound by the terms and provisions of this Agreement that survive the termination in accordance with Section 19.9.

4. Compensation . As full compensation for Executive's services under this Agreement, Executive shall receive compensation as determined by the Board, and Executive shall be eligible to receive the fringe benefits, as are provided generally to all senior managers of the Company, that are listed on the Senior Management Policy. The Company may change or terminate any fringe benefit provided by the Senior Management Policy from time to time while Executive is employed, so long as the change affects all senior managers.

5. Termination; Severance Payments .

5.1 At-Will Employment . Executive and the Company agree that Executive's employment is at-will and either Executive or the Company may terminate Executive's employment at any time, for any reason or no reason, and no provision contained herein shall affect the Company's ability to terminate Executive's employment at any time, with or without "Cause" (defined above). Nothing in this Agreement, the Company's 2010 Stock Incentive Plan, or any other plan or program of compensation or benefits in which Executive participates at the Company guarantees continued employment or creates an expectation of continued employment; *provided however* , that each party shall remain bound by the terms and provisions of this Agreement that survive the termination in accordance with Section 19.9.

5.2 Severance Compensation upon Termination of Employment by Company without Cause or by Executive's Constructive Termination . If, at any time outside of the CIC Protection Period (which is provided for in Section 5.3 below), there occurs: (a) except in the case of Executive's death, Executive's Termination of Employment by the Company without Cause or (b) Executive's Constructive Termination, then, subject to Executive continuing to fulfill Executive's obligations under Sections 5.2(b), 5.5 and 11 hereof:

(a) The Company shall pay Executive any earned and accrued but unpaid installment of base salary through the Date of Termination at the rate in effect at the time Notice of Termination is given and all other unpaid amounts to which Executive is entitled as of the Date of Termination under any compensation plan or program of the Company, including, without limitation, all accrued vacation time; such payments to be made in a lump sum on or before the fifth day following the Date of Termination;

(b) In lieu of any further salary payments to Executive for periods subsequent to the Date of Termination, the Company shall pay to Executive an amount equal to the sum of (A) Executive's annual base salary in effect as of the Date of Termination; plus (B) the target payment for that full year under the Short Term Incentive Plan; plus (C) the target amount under the Short Term Incentive Plan on a prorated basis for the period of the Company's then current fiscal year which Executive is employed by the Company prior to the Date of Termination; such payment to be made in a lump sum on or before the 60th calendar day following the Date of Termination; *provided* , that no such payment will be made unless Executive has entered into and delivered to the Company the separation agreement and general release described in Section 5.5 below, and any period during which Executive may revoke or rescind such release and covenant has expired before that 60th day; and *provided further* , that if, as of the Date of Termination: (x) any payment due under this Section 5.2 is reasonably deemed by the Company to be "deferred compensation" (as defined in the 409A Regulations), (y) any portion of the payment due under this Section 5.2 would exceed the sum of the applicable limited separation pay exclusions as determined pursuant to the 409A Regulations and (z) Executive is treated as a specified employee (as defined in the 409A Regulations), then payment of such excess amount shall be delayed until the six-month anniversary of the Date of Termination. If Executive continues to perform any services (as an employee or otherwise) for the Company or a Subsidiary of the Company after the Date of Termination, such six-month period shall be measured from the date of Executive's "separation from service" as defined pursuant to the 409A Regulations; and

(c) Notwithstanding anything stated in any other agreement between the Company and Executive that may be construed to the contrary, the Company shall cause any unvested portion of Executive's restricted stock units, performance awards and any other equity awards granted to Executive under the Company's 2010 Stock Incentive Plan, as amended, to immediately vest in full to the extent not already vested. Any performance awards will vest at the target level.

5.3 Severance Compensation upon a Change in Control and Termination of Employment . If (a) a Change in Control of the Company shall have occurred while Executive is an employee of the Company and (b) during the CIC Protection Period there occurs: (i) except in the case of Executive's death, Executive's Termination of Employment by the Company without Cause, or (ii) Executive's Constructive Termination, then, subject to Executive continuing to fulfill Executive's obligations under Sections 5.3(b), 5.5 and 11 hereof:

(a) The Company shall pay Executive any earned and accrued but unpaid installment of base salary through the Date of Termination at the rate in effect at the time Notice of Termination is given and all other unpaid amounts to which Executive is entitled as of the Date of Termination under any compensation plan or program of the Company, including, without limitation, all accrued vacation time; such payments to be made in a lump sum on or before the fifth day following the Date of Termination;

(b) In lieu of any further salary payments to Executive for periods subsequent to the Date of Termination, the Company shall pay to Executive an amount equal to the product of (A) the sum of (i) Executive's annual base salary in effect as of the Date of Termination and (ii) the target amount under the Short Term Incentive Plan for the year in which such Date of Termination occurs and (B) the number 2.0; such payment to be made in a lump sum on or before the 45th calendar day following the Date of Termination; *provided* , that no such payment will be made unless Executive has executed and delivered to the Company the release and covenant described in Section 5.5 below, and any period during which Executive may revoke or rescind such release and covenant has expired before that 45th day; and *provided further* , that if, as of the Date of Termination: (x) any payment due under this Section 5.3 is reasonably deemed by the Company to be "deferred compensation" (as defined in the 409A Regulations), (y) any portion of the payment due under this Section 5.3 would exceed the sum of the applicable limited separation pay exclusions as determined pursuant to the 409A Regulations and (z) Executive is treated as a specified employee (as defined in the 409A Regulations), then payment of such excess amount shall be delayed until the six-month anniversary of the Date of Termination (or the date of Executive's death, if earlier). If Executive continues to perform any services (as an employee or otherwise) for the Company or a Subsidiary of the Company after the Date of Termination, such six-month period shall be measured from the date of Executive's "separation from service" as defined pursuant to the 409A Regulations;

(c) If a Change in Control of the Company shall have occurred while Executive is an employee of the Company and Executive dies during the CIC Protection Period while still an employee of the Company, the amount specified in Section 5.3(a) shall be paid by the Company to Executive's estate; and such deceased Executive's spouse and eligible dependents shall be entitled to all of the benefits specified in the Senior Management Policy as if such deceased Executive had delivered a Notice of Termination to the Company immediately prior to such death; and

(d) Notwithstanding anything stated in any other agreement between the Company and Executive that may be construed to the contrary, the Company shall cause any unvested portion of Executive's restricted stock units, performance awards and any other equity awards granted to Executive under the Company's 2010 Stock Incentive Plan, as amended, to immediately vest in full to the extent not already vested. Any performance awards will vest at the target level.

5.4 <u>Termination of Employment by the Company for Cause or by Executive's Voluntary Termination or Death</u> . Upon Executive's Termination of Employment by the Company for Cause or Executive's voluntary Termination of Employment which does not constitute Constructive Termination, or if Executive dies outside of the CIC Protection Period but while still an employee of the Company, then t he Company shall pay to Executive or Executive's estate, in the case of Executive's death, any earned and accrued but unpaid installment of base salary through the Date of Termination or Executive's death at the rate in effect at the time Notice of Termination is given or at Executive's death and all other unpaid amounts to which Executive is entitled as of the Date of Termination or Executive's death under any compensation plan or program of the Company, including, without limitation, all accrued vacation time; such payments to be made in a lump sum on or before the fifth day following the date of the Date of Termination or Executive's death. Other than the compensation payments and/or benefits provided for in this Section 5.4, neither Executive nor Executive's estate is entitled to any other compensation payments or benefits upon the Termination of Employment for the events described in this Section 5.4.

5.5 Release Agreement. The Company's obligations to provide the payments and benefits in Section 5.2 or 5.3 are conditioned on Executive entering into a separation agreement and general release in the form attached as *Exhibit A* to this Agreement, with such changes as may be reasonably required to reflect changes in applicable law or circumstances subsequent to the date first above written; and the Company shall deliver such separation agreement and general release to Executive within 10 calendar days after the earlier of (i) the Date of Termination or (ii) the Company's receipt of a Notice of Termination asserting a Constructive Termination.

6. Limitation on Parachute Payments.

6.1 Limitation. Notwithstanding anything stated in this Agreement, or any other plan, arrangement or agreement to the contrary (including without limitation the Company's 2010 Stock Incentive Plan, as amended), if any of the Covered Payments constitute Parachute Payments and would, but for this Section 6 be subject to the Excise Tax, then the Covered Payments shall be payable either (i) in full or (ii) reduced to the minimum extent necessary to ensure that no portion of the Covered Payments is subject to the Excise Tax, whichever of the foregoing (i) or (ii) results in Executive's receipt on an after-tax basis of the greatest amount of benefits after taking into account the applicable federal, state, local and foreign income, employment and excise taxes (including the Excise Tax).

6.2 Reduction. The Covered Payments shall be reduced in a manner that maximizes Executive's economic position. In applying this principle, the reduction shall be made in a manner consistent with the requirements of Section 409A of the Code, and where two economically equivalent amounts are subject to reduction by payable at different times, such amounts shall be reduced on a pro rata basis but not below zero.

6.3 Accountants. Any determination required under this Section 6 shall be made in writing in good faith by the Accountants, which shall provide detailed supporting calculations to the Company and Executive as required by the Company or Executive. The Company and Executive shall provide the Accountants with such information and documents as the Accountants may reasonably request in order to make a determination under this Section 6. The Company shall be responsible for all fees and expenses of the Accountants.

6.4 Overpayment or Underpayment. It is possible that after the determinations and selections made pursuant to this Section 6 Executive will receive Covered Payments that are in the aggregate more than the amount provided under this Section 6 (" Overpaymen t") or less than the amount provided under this Section 6 (" Underpayment ").

6.4.1 In the event that: (A) the Accountants determine, based upon the assertion of a deficiency by the Internal Revenue Service against either the Company or Executive which the Accountants believe has a high probability of success, that an Overpayment has been made or (B) it is established pursuant to a final determination of a court or an Internal Revenue Service proceeding that has been finally and conclusively resolved that an Overpayment has been made, then Executive shall pay any such Overpayment to the Company.

6.4.2 In the event that: (A) the Accountants, based upon controlling precedent or substantial authority, determine that an Underpayment has occurred or (B) a court of competent jurisdiction determines that an Underpayment has occurred, any such Underpayment will be paid promptly by the Company to or for the benefit of Executive.

7. Policies and Procedures . Executive agrees to comply with all policies and procedures of the Company for its employees.

8. Confidential Information .

8.1 Confidential Information . Executive acknowledges that in the course of employment, Executive will learn of, have access to, and use the Company's Confidential Information. Executive recognizes that the Company's business depends to a considerable extent on other information pertaining to new business opportunities, patent protection, Inventions, trademarks, copyrighted material, and Trade Secrets respecting formulas, processes, methods, plans, apparatus, products, improvements, and applications. Executive also recognizes that the Company's business depends to a considerable extent on information pertaining to Company Customers and prospective Company Customers, and the Company's systems, policies, methods of operation, procedures, manuals; and pricing and other non-public information. The Company shall retain ownership of all rights to all of its Confidential Information and other business information described herein. Confidential Information shall not include any information that (i) is or becomes available to the public without a breach of this Agreement or right of the Company, or (ii) is lawfully obtained from a third party without breach of this Agreement or any other agreement, or (iii) if Executive is required by law to disclose Confidential Information in response to a valid order of a court or a government agency, Employee will promptly notify the Company and Executive will reasonably cooperate with the Company's attempts to obtain a protective order.

The Company may have an obligation to third parties to maintain Third Party Confidential Information. Executive agrees that all Third Party Confidential Information obtained by Executive during the course of employment, whether such information is communicated in written or verbal form, and whether such information is in recorded or unrecorded form and whether it is maintained solely at the Company's offices or elsewhere or maintained by Executive solely or in combination with other information will be held in strict confidentiality.

Executive shall not at any time or in any manner, either directly or indirectly, divulge or disclose the Company's Confidential Information or Third Party Confidential Information to any other person or entity except as required by Executive's duties to the Company, and Executive shall not use such Confidential Information or Third Party Confidential Information in competition with the Company or for the gain or benefit of Executive or any other person or company. Executive shall not utilize or divulge any Confidential Information or Third Party Confidential Information to any other person or company, regardless of whether such knowledge or information is in recorded form or otherwise, absent the express written consent of an authorized representative of the Company.

Following a Termination of Employment, Executive shall not remove or retain any document, copy of document, client or prospect files, or any other recording, in any type or form relating to any Confidential Information, other business information of the Company, or Third Party Confidential Information. Upon a Termination of Employment, or sooner at the request of the Board, Executive shall turn over to the Company all notes, memoranda, drawings, documents, apparatus, product and material related to the employment, it being agreed that such items are the property of the Company. The obligations of Executive under this entire section shall survive the termination of this Agreement and Executive's employment.

8.2 Former Employer Information . Executive agrees that Executive will not, during Executive's employment with the Company, improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer or other person or entity with whom Executive has an agreement or duty to keep such information or Secrets confidential, if any, and that Executive will not bring onto the premises of the Company any proprietary information belonging to any such employer, person or entity unless consented to by such employer, person or entity.

9. Inventions .

9.1 Inventions Retained and Licensed . Executive has attached hereto, as *Schedule B* to this Agreement, a list describing the Prior Inventions, which belong to Executive, which relate to the Company's proposed business, products or research and development, and which are not assigned to the Company hereunder; or, if no such list is attached, Executive represents that there are no such Prior Inventions. If in the course of Executive's employment with the Company, Executive incorporates into a Company product, process or machine a Prior Invention owned by Executive or in which Executive has an interest, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use and sell such Prior Invention as part of or in connection with such product, process or machine.

9.2 Assignment of Inventions . Executive agrees that Executive will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assign to the Company, or its designee, all Executive's right, title, and interest in and to any and all Inventions, including the copyright thereon. Executive further acknowledge that all original works of authorship which are made by Executive (solely or jointly with others) within the scope of Executive's employment and which are protectable by copyright are "works made for hire," as that term is defined in the United States Copyright Act.

9.3 Maintenance of Records . Executive agrees to keep and maintain adequate and current records of all Inventions made by Executive (solely or jointly with others) during the term of

Executive's employment with the Company. The records will be in the form of notes, sketches, drawings, and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times.

9.4 Patent and Copyright Registrations. Executive agrees to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, trademarks or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company the sole and exclusive right, title and interest in and to such Inventions, and any copyrights, patents, trademarks or other intellectual property rights relating thereto. Executive further agrees that Executive's obligation to execute or cause to be executed, when it is in Executive's power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of Executive's mental or physical incapacity or for any other reason to secure Executive's signature to apply for or to pursue any application for any United States or foreign patents or copyright, trademark or other registrations covering Inventions assigned to the Company as above, then Executive hereby irrevocably designates and appoints Company and its duly authorized officers and agents as Executive's agent and attorney in fact, to act for and in Executive's behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, or copyright, trademark or other registrations thereon with the same legal force and effect as if executed by Executive.

9.5 Intellectual Property Litigation or Prosecution. Executive further agrees that Executive will appear and give evidence in any suits, arbitrators, interferences or other legal proceedings which arise in connection with matters covered or intended to be covered in this Section 9. All expenses (including reimbursement for any loss of salary or wages from another employer if Executive is no longer employed by the Company) in connection with the matters covered or intended to be covered in this Section 9 shall be borne by the Company and any legal proceedings in connection with such matters shall be conducted by attorneys chosen by the Company.

10. Conflicting Employment. Executive agrees that, during the term of Executive's employment with the Company, Executive will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of Executive's employment, nor will Executive engage in any other activities that conflict with Executive's obligations to the Company. If there is any possibility of a conflict or perceived conflict, Executive understands that it is Executive's obligation and duty to present the potential conflict to the Company and the Company can decide, in its discretion, whether a conflict exists.

11. Returning Company Documents. Executive agrees that, upon a Termination of Employment, or sooner at the request of the Board, Executive will deliver to the Company (and will not keep in my possession or deliver to anyone else) any and all devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items developed by Executive pursuant to Executive's employment with the Company or otherwise belonging to the Company or that constitutes Confidential Information or Third Party Confidential Information. Upon the termination of Executive's employment, Executive agrees to sign and deliver to the Company the "Termination Certification" attached hereto as *Exhibit B* to this Agreement. The Company's obligations to provide the payments and benefits in Section 5.2 or 5.3 are conditioned on Executive, among other requirements, signing the Termination Certification.

12. Solicitation of Employees. Executive agrees that Executive shall not, for a period of two (2) years immediately following the Termination of Employment, either directly or indirectly, on Executive's own behalf or in the service or on behalf of others, solicit, recruit or attempt to persuade any person to terminate such person's employment with the Company, whether or not such person is a full-time employee or whether or not such employment is pursuant to a written agreement or is at-will.

13. Solicitation of Company Customers. Executive agrees that Executive shall not, for a period of two (2) years immediately following the Termination of Employment, directly or indirectly market, sell, or provide, or attempt to market, sell, or provide to any Company Customer any product or service of a Conflicting Organization that competes with any Company Product.

14. Covenant Not to Compete. Executive agrees that Executive shall not, for a period of two (2) years immediately following the Termination of Employment, be employed by or otherwise perform services in any other capacity for a Conflicting Organization in connection with or relating to Competitive Research or a product or service that competes with a Company Product.

15. Enforcement.

15.1 Jurisdiction. Executive agrees that any dispute or controversy arising out of or relating to any interpretation, construction, performance or breach of this Agreement or any other dispute between the parties shall be brought in the Circuit Court, Second Judicial Circuit, Minnehaha County, South Dakota. Executive consents to the personal jurisdiction of such circuit court.

15.2 Remedies. The restrictions in this Agreement are not greater than reasonably necessary to protect the Company's legitimate interests; are reasonable in the sense that they are not injurious, harmful, or prejudicial to the public or public interest; and are not unduly harsh, burdensome, or oppressive on Executive because they are reasonable in time and area and do not restrict Executive's right to pursue Executive's livelihood. Executive agrees that it would be impossible or inadequate to measure and calculate the Company's damages from any breach of the covenants set forth in this Agreement, and that a breach of such covenants could cause irreparable injury to the Company. Accordingly, Executive agrees that if Executive breaches any of such covenants, the Company will have available, in addition to any other right or remedy available, the right to obtain an injunction from a court of competent jurisdiction restraining such breach or threatened breach and to specific performance of any such provision of this Agreement. Executive further agrees that no bond or other security shall be required in obtaining such equitable relief and Executive hereby consents to the issuance of such injunction and to the ordering of specific performance.

16. **Usage of Name**. Executive agree that Executive will provide, and that the Company may similarly provide, a copy of this Agreement to any business or enterprise (i) which Executive may directly or indirectly be employed by or own, manage, operate, finance, join, participate in the ownership, management, operation, financing, control or control of, or (ii) with which Executive may be connected with as an officer, director, employee, partner, principal, agent, representative, consultant or otherwise, or in connection with which Executive may use or permit Executive's name to be used.

17. **Tolling Provision**. The parties agree that the duration of the restrictions in Sections 12, 13 and 14 shall be extended for a period equal to the duration of any breach of such covenants by Executive to the maximum extent permitted by applicable law.

18. **Successors**.

18.1 Executive. This Agreement shall inure to the benefit of and be enforceable by Executive's personal and legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If Executive should die while any amounts are still payable to Executive hereunder, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Agreement to Executive's devisee, legatee or other designee or, if there be no such designee, to Executive's estate.

18.2 The Company. The Company will require any successor or assign (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company, by agreement in form and substance satisfactory to Executive, expressly, absolutely and unconditionally to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession or assignment had taken place. As used in this Agreement, "Company" shall mean the Company as hereinbefore defined and any successor or assign to its business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section 18.2 or which otherwise becomes bound by all the terms and provisions of this Agreement by operation of law. If at any time during the term of this Agreement Executive is employed by a Subsidiary of the Company, (1) "Company" as used in this Agreement shall in addition include such Subsidiary, (2) the Company agrees that it shall pay or shall cause such Subsidiary to pay any amounts owed to Executive pursuant to Sections 4 or 5 hereof and (3) any transfer of Executive's employment between the Subsidiary and the Company or another Subsidiary shall not, in and of itself, be deemed a Termination of Employment.

19 **Miscellaneous**.

19.1 No Obligation to Mitigate Damages; No Effect on Other Contractual Rights. Executive shall not be required to mitigate damages or the amount of any payment provided for under this Agreement by seeking other employment or otherwise, nor shall the amount of any payment provided for under this Agreement be reduced by any compensation earned by Executive as the result of employment by another employer after the Date of Termination.

19.2 No Effect on Other Contractual Rights . The provisions of this Agreement, and any payment provided for hereunder, shall not reduce any amounts otherwise payable, or in any way diminish Executive's existing rights, including post-retirement benefits or any other rights which would accrue solely as a result of the passage of time, under any benefit plan, employment agreement or other contract, Company policy, plan or arrangement (except for the Prior Employment Agreement and the Change in Control Agreement, which are terminated pursuant to Section 19.8).

19.3 Withholding . The Company shall deduct, from any payment made under this Agreement, any Federal or state taxes required by law to be withheld from such payment.

19.4 Miscellaneous . No provisions of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by Executive and such officer of the Company as may be specifically designated by the Board. No term or condition of this Agreement shall be deemed to have been waived, nor shall there be any estoppel to enforce any provision hereof, except by a written instrument executed by the party charged with waiver or estoppel. The Company's delay, waiver, or failure to enforce any of the terms of this Agreement or any similar agreement with any other of its employees shall not constitute a waiver of its rights hereunder with respect to other violations of this Agreement or any other agreement.

19.5 Notices . For purposes of this Agreement, notices and all other communications provided for in the Agreement shall be in writing and shall be deemed to have been duly given when delivered or three days after mailing by United States registered mail, return receipt requested, postage prepaid, as follows:

To the Company:

Raven Industries, Inc.

205 East 6th Street

P.O. Box 5107

Sioux Falls, South Dakota 57117

Attention: President

If to Executive:

(Address currently on file with the Company)

or such other address as either party may have furnished to the other in writing in accordance herewith, except that notices of change of address shall be effective only upon receipt.

19.6 Severability . Executive acknowledges that the provisions, restrictions and time limitations contained in Sections 8, 12, 13, 14 and 15 are reasonable and properly required for the adequate protection of the business of the Company. If any provision of this Agreement is unreasonable or unenforceable under applicable law, the validity or enforceability of the remaining provisions shall not be affected. To the extent any provision of this Agreement is judicially determined to be unenforceable or unreasonable in any respect, a court of competent jurisdiction may reform any such provision to make it reasonable and enforceable to the extent permitted by applicable law. It is the desire of Executive and the Company that the provisions of this Agreement shall be interpreted, where possible, to sustain their legality and enforceability and protect the Company's legally protectable business interests.

19.7 Counterparts . This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

19.8 Entire Agreement . This Agreement constitutes the entire agreement between the parties and supersedes the Prior Employment Agreement and the Change in Control Agreement and all other prior agreements and understandings between the parties with respect to the subject matter hereof; *provided* , that this Agreement shall not affect or reduce any benefit to which Executive shall be otherwise entitled under the Company's 2010 Stock Incentive Plan, as amended, or any other plan, agreement or policy of or with the Company. No modification of or amendment to this Agreement, nor any waiver of any rights under this agreement, will be effective unless in writing signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will to affect the validity or scope of this Agreement.

19.9 Survival . Any Termination of Employment shall not affect the continuing operation and effect of Sections 5 through 19 hereof, which shall survive the Termination of Employment and continue in full force and effect with respect to the Company and Executive. Sections 5 through 19 hereof shall also continue in force and effect if Executive's duties, compensation, title, or location of work for the Company change after this Agreement becomes effective, and any such change will not terminate or invalidate this Agreement or affect or impair its validity and enforceability.

19.10 Fees and Expenses . The Company shall pay all fees and expenses (including attorney's fees) which Executive may incur as a result of the Company's contesting the validity, enforceability or Executive's interpretation of, or determinations under, this Agreement, regardless of whether the Company or Executive is successful in such contest.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Employment Agreement as of the date and year first above written.

RAVEN INDUSTRIES, INC.

By: /s/ DANIEL A. RYKHUS

Daniel A. Rykhus,
President and Chief Executive Officer

EXECUTIVE:

By: /s/ STEVEN E. BRAZONES

Steven E. Brazones

Exhibit 10.2

Schedule A

POLICIES AND PROCEDURES **PAGE 1 OF 1** **NO. RS-01**
DATE: 25 AUGUST 2015 (Revised 1 January 2016)
SUBJECT: SENIOR MANAGEMENT BENEFITS
SCHEDULE A

In addition to all of the fringe benefits provided to salaried employees the Chief Financial Officer (hired after 12/1/14), Vice President of Human Resources, General Counsel and Vice President of Corporate Development, Division Vice Presidents/General Managers, Chief Technology Officer and the Chief Information Officer (the "Senior Managers") will have the following additional benefits:

1. Supplemental health insurance benefits for the Senior Managers and dependents up to 4% of the total of the current base salary.
2. Health club membership or equivalent in home exercise equipment.
3. Group Life Insurance and A.D. & D. at 2.0 times annualized base salary as of January 1st each year. The Group Life Insurance / AD&D policy is updated annually on February 1st each year, and the benefit will be limited to the maximum benefit offered by the current life insurance carrier.
4. Full pay for sick leave up to a point where disability insurance coverage begins. Disability insurance is 60% of base salary, non-integrated with Social Security. Provisions of the actual policy will govern the exact amount of payments.
5. Two additional weeks of paid vacation in addition to the regular established vacation policy.
6. Physical examination provided by the Company will be given on a biennial basis to age 60 on individuals who are asymptomatic, annually if symptomatic. Above age 60 examinations will be annually.
7. Senior Manager's annual base salary will be grossed up at the end of the calendar year to compensate for the additional payroll and income tax burden created by the treatment of benefits under Numbers 1, 3, and 6, above, as additional income.

Exhibit 10.2

Schedule B

LIST OF PRIOR INVENTIONS

AND ORIGINAL WORKS OF AUTHORSHIP

Title	Date	Identifying Number or Brief Description

Exhibit A

SEPARATION AGREEMENT AND GENERAL RELEASE

Definitions . All the words used in this Separation Agreement and General Release ("Agreement") have their plain meaning in ordinary English. Specific terms used in this Agreement have the following meanings:

1. Words such as "I" and "me" include both me and anyone who has or obtains any legal rights or claims against "Raven" (defined below) and the "Company" (defined below), and each of them, through me. My name is ________ .

2. "Raven" means Raven Industries, Inc.

3. The "Company" means Raven, and Raven's past and present parent, subsidiaries and affiliated entities, and all and each of the past and present Board of Directors, officials, managers, members, governors, agents, officers, directors, employees, shareholders, attorneys, committees, insurers, indemnitors, investors, successors and assigns of any and all of the foregoing entities.

Background .

1. My employment with Raven ended on ____________ (the "Separation Date"). I agree not to sign this Agreement prior to the end of my work day on the Separation Date.

2. I have been paid all of my accrued and unused paid time off and all other wages, salary, and monies due and owing to me through the Separation Date.

3. The purpose of this Agreement is to fully and finally release the Company from all of "My Claims" (as defined below) through my signing of this Agreement.

4. In exchange for "My Promises" (defined below), Raven has promised to do the following for me (all and each are "Raven's Promises") as long as I sign this Agreement and do not exercise my rights to revoke or rescind as set forth below.

5. I acknowledge and agree that I received this Agreement on the Separation Date and understand that I have 21 days from the Separation Date to decide whether to sign this Agreement. If I do not sign this Agreement within that timeframe, the offer contained within this Agreement will expire.

6. I acknowledge and agree that I will not sign this Agreement prior to the end of work day on the Separation Date or this Agreement will be null and void.

7. This Agreement is being entered into pursuant to that certain Amended and Restated Employment Agreement between Raven and me dated ____________ (the "Employment Agreement").

Raven's Promises .

1. **Severance Pay.** Raven agrees to pay me the amounts and benefits specified in the Employment Agreement at the times specified therein, less any deductions Raven is required to make or believes in good faith it is required to make from that amount.

My Claims . The claims I am releasing below (all and each are "My Claims") include all of my rights to any relief of any kind from the Company through the date on which I sign this Agreement, to the fullest extent permitted by law, including but not limited to:

1. All claims I have now, whether or not I know about or suspect the claims;

2. All claims for attorney's fees, costs, and disbursements;

3. All rights and claims under the Age Discrimination in Employment Act ("ADEA"), Older Workers Benefit Protection Act ("OWBPA"), the South Dakota Human Relations Act ("SDHRA"), Americans with Disabilities Act ("ADA"), Title VII of the Civil Rights Act of 1964 ("Title VII"), Family and Medical Leave Act ("FMLA"), and any other federal, state, local law, rule, or regulation regarding discrimination and retaliation;

4. All claims arising out of my employment and my separation from employment with Raven including, but not limited to, breach of contract, wrongful termination, illegal termination, termination in violation of public policy, breach of an implied contract, breach of covenant of good faith and fair dealing, defamation, promissory estoppel, violation of state or federal leave laws, equal pay laws, invasion of privacy, fraud, retaliation, and intentional or negligent infliction of emotional distress;

5. All claims for any other alleged unlawful employment practices arising out of or relating to my employment or my separation from employment; and

6. All claims for any other form of pay, compensation or remuneration that is not provided in this Agreement.

My Promises .

1. In exchange for Raven's Promises (described above), I hereby fully and finally release to the maximum extent permitted by law all of "My Claims" (described above) against the Company, including for example rights and claims under the ADA, SDHRA, OWBPA, ADEA, FMLA, and Title VII. I will not bring any lawsuits against the Company except if necessary to enforce the provisions of this Agreement. The money and benefits that I will receive as set forth in this Agreement as Raven's Promises are full and fair payment for the release of My Claims. The Company does not owe me anything in addition to what I will receive under this Agreement. The money and benefits that I am receiving under this Agreement as Raven's Promises have a value that is greater than anything else to which I am entitled. Specifically excluded from my waiver and release of claims are claims or disputes that: (1) by law cannot be released in a private agreement (such as workers' compensation claims); (2) arise after the effective date of this Agreement; or (3) relate to the obligations of the parties under this Agreement.

2. In exchange for Raven's Promises, I promise to successfully transition my work responsibilities. I will provide Raven with a list of any documents and return the work computers or other devices that require password(s) necessary to access such devices or documents. I will cooperate with Raven and use my best efforts to be available, on a reasonable basis, to answer questions that may arise to achieve a smooth transition after the Separation Date. I also agree to be available to and cooperate with Raven and its counsel in connection with any investigation, administrative proceeding or litigation relating to any matter, occurring during my employment, in which I was involved or of which I have knowledge. I understand and agree that such cooperation includes, but is not limited to, making myself available to Raven and/or its counsel upon reasonable notice for: interviews and factual investigations; appearing to give testimony without requiring service of a subpoena or other legal process; volunteering to Raven or its counsel pertinent information; and turning over all relevant documents which are or may come into my possession.

Additional Agreements and Understandings .

1. **Non-Admission.** Except for the Company's obligations under the Employment Agreement, the Company does not admit that it is responsible or legally obligated to me, and in fact, the Company denies that it is responsible or legally obligated to me. I acknowledge that Raven's Promises described in this Agreement is sufficient consideration to support enforcement of this Agreement.

2. **Benefit Plans.** My and Raven's rights and obligations in any benefit plan in which I participated during my employment are governed by the applicable plan documents. Further, I am not releasing any rights I may have to be indemnified by Raven for acts or omissions as an employee, officer and/or director of Raven pursuant to any insurance policy, statute, or corporate change or bylaw provision by entering into this Agreement.

3. **Filing.** This Agreement does not prohibit me from filing an administrative complaint, or an administrative charge of discrimination with, or cooperating or participating in an investigation or proceeding conducted by, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, the Securities and Exchange Commission, or other federal or state regulatory or law enforcement agency ("Government Agencies"). If I filed or file such a charge or complaint, the payment and benefits described in this Agreement are in complete satisfaction of any and all claims in connection with such charge or complaint, and I am not entitled to any other monetary relief with respect to the claims released in this Agreement. *Provided,* I understand that this Agreement does not limit my right to receive an award for information provided to any Government Agencies.

4. **Property.** I have delivered to Raven any and all of its records and property in my possession or under my control, including without limitation manuals, books, passwords, blank forms, documents, letters, memoranda, notes, notebooks, passwords, reports, printouts, computer disks, flash drives or other digital storage media, source codes, data, tables or calculations and all copies thereof, documents that in whole or in part contain any trade secrets or confidential, proprietary or other secret information of Raven and all copies thereof. I have returned to Raven all equipment, laptop computers, iPads, iPhones, other cellular phones, BlackBerry devices, credit cards, security cards and keys, badges, and files and any other property belonging to Raven, including all copies of same, that were in my possession or control. I no longer possess or have within my control any

of the aforementioned Raven property, information or belongings. I have not downloaded, diverted, or transferred in any manner any files or other data that are the property of Raven.

5. **Non-Disparagement.** I will not intentionally disparage the Company, its products, services, systems, and other matters pertaining to its business. The prohibitions of this paragraph do not apply to my legally protected communications or communications with the Equal Employment Opportunity Commission, the National Labor Relations Board, or any other Government Agencies.

6. **Confidentiality.** The terms and conditions of this Agreement are strictly confidential. I will not discuss or reveal the existence or the terms of this Agreement to any persons, entities, or organizations except as follows: (a) as required by law or court order; (b) by me to my immediate family; or (c) to my attorney, financial planner and accountant. I must ensure that any person or entity described in subsections (b) and (c), to whom such disclosures are made must, as a condition of such disclosure, agree to keep the terms of this Agreement strictly confidential. This confidentiality provision does not prohibit me from providing this Agreement to the Equal Employment Opportunity Commission, the National Labor Relations Board, or other Government Agencies.

7. **Remuneration.** I acknowledge and agree that I am not owed any remuneration or benefits from the Company other than the consideration identified within this Agreement including but not limited to wages, commissions, benefits, bonuses, vacation pay, sick pay, paid time off, stock, or any other incentives.

8. **Tax Indemnification.** I acknowledge that I have not relied on any tax advice provided by the Company and that, if necessary, I am responsible for properly reporting the payment and benefits received pursuant to this Agreement and paying any applicable taxes.

Rights to Counsel, Consider, Revoke, and Rescind .

1. I have been advised to consult with an attorney prior to executing the Agreement. Raven recommends that I consult with an attorney prior to signing this Agreement. I can freely choose to seek legal advice before signing this Agreement.

2. I have twenty-one (21) days to consider this Agreement, including my waiver of rights and claims of age discrimination and retaliation under the ADEA and OWBPA, beginning the date on which I received this Agreement. If I signed this Agreement, then for a period of seven (7) days following the day on which I signed it, I will be entitled to revoke this Agreement, and this Agreement will not become effective or enforceable until after the revocation period has expired. My waiver of claims in this Agreement does not include any claims that may arise after the date that I sign this Agreement.

3. To revoke my waiver(s), I must put the revocation in writing and deliver it to Raven by hand via ________ or mail it within the 7-day period. If I deliver the revocation by mail, it must be postmarked within seven (7) calendar days after the date on which I signed this Agreement; addressed to Raven, c/o __________and sent by certified mail, return receipt requested.

If I exercise my rights to revoke my waivers as provided above, this Agreement will be null and void. My employment will still end on the Separation Date, and I will not receive Raven's Promises in this Agreement.

Agreement Freely Entered Into .

I represent that I have voluntarily, and free from duress or undue coercion, made My Promises in this Agreement.

Severability .

If any provision of this Agreement is unenforceable under applicable law, the validity or enforceability of the remaining provisions will not be affected. To the extent any provision of this Agreement is judicially determined to be unenforceable, a court of competent jurisdiction may reform any such provision to make it enforceable. The provisions of this Agreement will, where possible, be interpreted to sustain their legality and enforceability.

Entire Agreement .

This Agreement, together with the Employment Agreement, are the final and complete agreements between Raven, the Company, and me with regard to the matters therein. Any modification of, or addition to, this Agreement must be in in writing and signed by the parties.

Successors and Assigns .

This Agreement will be binding upon and inure to the benefit of the successors and assigns of Raven, the Company, and me. I understand that I may not assign this Agreement.

Governing Law And Venue .

The parties agree that this Agreement shall be interpreted, construed, governed and enforced under and pursuant to the laws of the State of South Dakota. I irrevocably consent to the exclusive jurisdiction of courts in South Dakota for the purposes of any action arising out of or related to my employment, or any actions for temporary, preliminary, and permanent equitable relief.

Knowing and Voluntary Agreement .

I have read this Agreement carefully and understand all of its terms. I have had the opportunity to discuss this Agreement with my own attorney prior to signing it, and to make certain that I understand the meaning of the terms and conditions contained in this Agreement and fully understand the content and effect of this Agreement. In agreeing to sign this Agreement, I have not relied on any statements or explanations made by Raven, the Company, or all and each of their respective agents or attorneys except as set forth in this Agreement. I agree to abide by this Agreement.

Date___________________

____

[EMPLOYEE NAME]

Date___________________	RAVEN INDUSTRIES, INC.
	By _______________________________________
	Its _______________________________________

REST OF PAGE INTENTIONALLY LEFT BLANK

Exhibit B

TERMINATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items belonging to Raven Industries, Inc., its subsidiaries, or any of their respective successors or assigns (together, the “Company”).

I further certify that I have complied and will continue to comply with all the terms of my Amended and Restated Employment Agreement with the Company (the “Employment Agreement”), including, without limitation, those pertaining to non-competition, non-solicitation, Confidential Information, and the reporting of any Inventions.

Without limiting the generality of the preceding paragraph, I will, in accordance with the Employment Agreement, preserve as confidential all Confidential Information (as defined in the Employment Agreement) and any Third Party Confidential Information (as defined in the Employment Agreement) that the Company has an obligation to maintain in confidence.

Dated:________________

____
Signature

____
Name of Employee (typed or printed)

Exhibit 10.3

Schedule A

POLICIES AND PROCEDURES **PAGE 1 OF 1** **NO. RS-01**
DATE: 25 AUGUST 2015 (Revised 1 January 2016)
SUBJECT: SENIOR MANAGEMENT BENEFITS
SCHEDULE A

In addition to all of the fringe benefits provided to salaried employees the Chief Financial Officer (hired after 12/1/14), Vice President of Human Resources, General Counsel and Vice President of Corporate Development, Division Vice Presidents/General Managers, Chief Technology Officer and the Chief Information Officer (the "Senior Managers") will have the following additional benefits:

1. Supplemental health insurance benefits for the Senior Managers and dependents up to 4% of the total of the current base salary.
2. Health club membership or equivalent in home exercise equipment.
3. Group Life Insurance and A.D. & D. at 2.0 times annualized base salary as of January 1st each year. The Group Life Insurance / AD&D policy is updated annually on February 1st each year, and the benefit will be limited to the maximum benefit offered by the current life insurance carrier.
4. Full pay for sick leave up to a point where disability insurance coverage begins. Disability insurance is 60% of base salary, non-integrated with Social Security. Provisions of the actual policy will govern the exact amount of payments.
5. Two additional weeks of paid vacation in addition to the regular established vacation policy.
6. Physical examination provided by the Company will be given on a biennial basis to age 60 on individuals who are asymptomatic, annually if symptomatic. Above age 60 examinations will be annually.
7. Senior Manager's annual base salary will be grossed up at the end of the calendar year to compensate for the additional payroll and income tax burden created by the treatment of benefits under Numbers 1, 3, and 6, above, as additional income.

Exhibit 21

RAVEN INDUSTRIES, INC.
SUBSIDIARIES OF THE REGISTRANT

NAME OF SUBSIDIARY	JURISDICTION
Aerostar International, Inc.	South Dakota, USA
Aerostar Integrated Systems, LLC [(a)]	Delaware, USA
Raven Industries Canada, Inc.	Nova Scotia, Canada
Raven International Holding Company B.V.	Amsterdam, Netherlands
SBG Innovatie BV	Middenmeer, Netherlands
Vista Research, Inc.	California, USA

(a) 75% owned

Pursuant to Item 601(b)(21) of Regulation S-K, we have omitted some subsidiaries that considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary as of January 31, 2017 under Rule 1-02(w) of Regulation S-X.

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-204796, 333-189009, 333-182051, 333-167290, 333-139063, 333-41352) of Raven Industries, Inc. of our report dated March 31, 2017 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Minneapolis, Minnesota

March 31, 2017

Exhibit 31.1

RAVEN INDUSTRIES, INC.

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO RULE 13A-14(A) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Daniel A. Rykhus, certify that:

1. I have reviewed this Annual Report on Form 10-K of Raven Industries, Inc. (the Registrant);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; and

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;

4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's board of directors (or others performing the equivalent function):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal controls over financial reporting.

Dated: March 31, 2017	/s/ DANIEL A. RYKHUS
	Daniel A. Rykhus
	President and Chief Executive Officer

Exhibit 31.2

RAVEN INDUSTRIES, INC.

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO RULE 13A-14(A) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Steven E. Brazones, certify that:

1. I have reviewed this Annual Report on Form 10-K of Raven Industries, Inc. (the Registrant);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; and

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;

4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's board of directors (or others performing the equivalent function):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal controls over financial reporting.

Dated: March 31, 2017

/s/ STEVEN E. BRAZONES

Steven E. Brazones

Vice President and Chief Financial Officer

Exhibit 32.1

RAVEN INDUSTRIES, INC.

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned, Daniel A. Rykhus, President and Chief Executive Officer of Raven Industries, Inc., has executed this Certification in connection with the filing with the Securities and Exchange Commission of Raven Industries, Inc.'s Annual Report on Form 10-K for the fiscal year ended January 31, 2017 (the Report).

The undersigned hereby certifies, to his knowledge, that:

- the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

- the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Raven Industries, Inc.

Dated: March 31, 2017

/s/ DANIEL A. RYKHUS

Daniel A. Rykhus

President and Chief Executive Officer

Exhibit 32.2

RAVEN INDUSTRIES, INC.

**CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE
SARBANES-OXLEY ACT OF 2002**

The undersigned, Steven E. Brazones, the Vice President and Chief Financial Officer of Raven Industries, Inc., has executed this Certification in connection with the filing with the Securities and Exchange Commission of Raven Industries, Inc.'s Annual Report on Form 10-K for the fiscal year ended January 31, 2017 (the Report).

The undersigned hereby certifies, to his knowledge, that:

- the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Raven Industries, Inc.

Dated: March 31, 2017	/s/ STEVEN E. BRAZONES
	Steven E. Brazones
	Vice President and Chief Financial Officer