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

FORM 10-K

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

For the fiscal year ended December 31, 2019

OR

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

For the transition period from __________ to __________

Commission File Number 1-8174

DUCOMMUN INCORPORATED
(Exact name of registrant as specified in its charter)

Delaware	**95-0693330**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
200 Sandpointe Avenue, Suite 700, Santa Ana, California	**92707-5759**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: (657) 335-3665

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $.01 par value per share	**DCO**	**New York Stock Exchange**

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

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 x

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 x No ☐

Indicate by check mark whether the registrant has submitted electronically 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 such files). Yes x 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 definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price of which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter ended June 29, 2019 was $519 million.

The number of shares of common stock outstanding on February 7, 2020 was 11,606,827.

DOCUMENTS INCORPORATED BY REFERENCE

The following documents are incorporated by reference:

(a) Proxy Statement for the 2020 Annual Meeting of Shareholders (the "2020 Proxy Statement"), incorporated partially in Part III hereof.

DUCOMMUN INCORPORATED AND SUBSIDIARIES

FORWARD-LOOKING STATEMENTS AND RISK FACTORS

This Annual Report on Form 10-K ("Form 10-K") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be preceded by, followed by or include the words "could," "may," "believe," "expect," "anticipate," "plan," "estimate," "expect," or similar expressions. These statements are based on the beliefs and assumptions of our management. Generally, forward-looking statements include information concerning our possible or assumed future actions, events or results of operations. Forward-looking statements specifically include, without limitation, the information in this Form 10-K regarding: future sales, earnings, cash flow, uses of cash and other measures of financial performance, projections or expectations for future operations, our plans with respect to restructuring activities, completed acquisitions, future acquisitions and dispositions and expected business opportunities that may be available to us.

Although we believe that the expectations reflected in the forward-looking statements are based on reasonable assumptions, these forward-looking statements are subject to numerous factors, risks and uncertainties that could cause actual outcomes and results to be materially different from those projected. We cannot guarantee future results, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. All written and oral forward-looking statements made in connection with this Form 10-K that are attributable to us or persons acting on our behalf are expressly qualified in their entirety by "Risk Factors" contained within Part I, Item 1A of this Form 10-K and other cautionary statements included herein.

The information in this Form 10-K is not a complete description of our business. There can be no assurance that other factors will not affect the accuracy of these forward-looking statements or that our actual results will not differ materially from the results anticipated in such forward-looking statements. While it is impossible to identify all such factors, some factors that could cause actual results to differ materially from those estimated by us include, but are not limited to, those factors or conditions described under Risk Factors contained within Part I, Item 1A of this Form 10-K and the following:

- our ability to manage and otherwise comply with our covenants with respect to our outstanding indebtedness;
- our ability to service our indebtedness;
- our acquisitions, business combinations, joint ventures, divestitures, or restructuring activities may entail certain operational and financial risks;
- the cyclicality of our end-use markets and the level of new commercial and military aircraft orders;
- industry and customer concentration;
- production rates for various commercial and military aircraft programs;
- the level of U.S. Government defense spending;
- compliance with applicable regulatory requirements and changes in regulatory requirements, including regulatory requirements applicable to government contracts and sub-contracts;
- further consolidation of customers and suppliers in our markets;
- product performance and delivery;
- start-up costs, manufacturing inefficiencies and possible overruns on contracts;
- increased design, product development, manufacturing, supply chain and other risks and uncertainties associated with our growth strategy to become a supplier of higher-level assemblies;
- our ability to manage the risks associated with international operations and sales;
- possible goodwill and other asset impairments;
- economic and geopolitical developments and conditions;
- unfavorable developments in the global credit markets;
- our ability to operate within highly competitive markets;
- technology changes and evolving industry and regulatory standards;
- the risk of environmental liabilities;
- the risk of cyber security attacks or not being able to detect such attacks; and
- litigation with respect to us.

We caution the reader that undue reliance should not be placed on any forward-looking statements, which speak only as of the date of this Form 10-K. We do not undertake any duty or responsibility to update any of these forward-looking statements to reflect events or circumstances after the date of this Form 10-K except as required by law.

PART I

ITEM 1. BUSINESS

GENERAL

Ducommun Incorporated (“Ducommun,” “the Company,” “we,” “us” or “our”) is a leading global provider of engineering and manufacturing services for high-performance products and high-cost-of failure applications used primarily in the aerospace and defense (“A&D”), industrial, medical and other industries (collectively, “Industrial”). Ducommun differentiates itself as a full-service solution-based provider, offering a wide range of value-added advanced products and services in our primary businesses of electronics, structures, and integrated solutions. We operate through two primary business segments: Electronic Systems and Structural Systems. We are the successor to a business that was founded in California in 1849 and reincorporated in Delaware in 1970.

ACQUISITIONS

Acquisitions have been an important element of our growth strategy. We have supplemented our organic growth by identifying, acquiring and integrating acquisition opportunities that result in broader, more sophisticated product and service offerings while diversifying and expanding our customer base and markets.

For example, on October 8, 2019, we acquired all the outstanding equity interests of Nobles Parent Inc., the parent company of Nobles Worldwide, Inc. (“Nobles”), a privately-held global leader in the design and manufacturing of high performance ammunition handling systems for a wide range of military platforms including fixed-wing aircraft, rotary-wing aircraft, ground vehicles, and shipboard systems for $77.0 million, net of cash acquired, funded by drawing down on our revolving credit facility. The acquisition of Nobles advances our strategy to diversify and offer more customized, value-driven engineered products with aftermarket opportunities and is included in our Structural Systems segment.

PRODUCTS AND SERVICES

Business Segment Information

We operate through two primary strategic businesses Electronic Systems and Structural Systems, each of which is a reportable segment. The results of operations among our operating segments vary due to differences in competitors, customers, extent of proprietary deliverables and performance. Electronic Systems designs, engineers and manufactures high-reliability electronic and electromechanical products used in worldwide technology-driven markets including A&D and Industrial end-use markets. Electronic Systems’ product offerings primarily range from prototype development to complex assemblies as discussed in more detail below. Structural Systems designs, engineers and manufactures various sizes of complex contoured aerostructure components and assemblies and supplies composite and metal bonded structures and assemblies. Structural Systems’ products are primarily used on commercial aircraft, military fixed-wing aircraft and military and commercial rotary-wing aircraft.

Electronic Systems

Electronic Systems has multiple major product offerings in electronics manufacturing for diverse, high-reliability applications: complex cable assemblies and interconnect systems, printed circuit board assemblies, higher-level electronic, electromechanical, and mechanical components and assemblies, and lightning diversion systems. Components, assemblies, and lightning diversion products are provided principally for domestic and foreign commercial and military fixed-wing aircraft, military and commercial rotary-wing aircraft and space programs. Further, we provide select industrial high-reliability applications for the industrial, medical, and other end-use markets. We build custom, high-performance electronics and electromechanical systems. Our products include sophisticated radar enclosures, aircraft avionics racks and shipboard communications and control enclosures, printed circuit board assemblies, cable assemblies, wire harnesses, and interconnect systems, lightning diversion strips, surge suppressors, conformal shields and other high-level complex assemblies. Electronic Systems utilizes a highly-integrated production process, including manufacturing, engineering, fabrication, machining, assembly, electronic integration, and related processes. Engineering, technical and program management services are provided to a wide range of customers.

In response to customer needs and utilizing our in-depth engineering expertise, Electronic Systems is also considered a leading supplier of engineered products including, illuminated pushbutton switches and panels for aviation and test systems, microwave and millimeter switches and filters for radio frequency systems and test instrumentation, and motors and resolvers for motion control.

Electronic Systems also provides engineering expertise for aerospace system design, development, integration, and testing. We leverage the knowledge base, capabilities, talent, and technologies of this focused capability into direct support of our customers.

Structural Systems

Structural Systems has three major product offerings to support a global customer base: commercial aircraft, military fixed-wing aircraft, and military and commercial rotary-wing aircraft. Our applications include structural components, structural assemblies, bonded (metal and composite) components, precision profile extrusions and extruded assemblies, and ammunition handling systems. In the structural components products, Structural Systems provides design services, engineers, and manufacturing of large complex contoured aluminum, titanium and Inconel aerostructure components for the aerospace industry. Structural assembly products include winglets, engine components, and fuselage structural panels for aircraft. Metal and composite bonded structures and assemblies products include aircraft wing spoilers, large fuselage skins, rotor blades on rotary-wing aircraft and components, flight control surfaces and engine components. To support these products, Structural Systems maintains advanced machine milling, stretch-forming, hot-forming, metal bonding, composite layup, and chemical milling capabilities and has an extensive engineering capability to support both design services and manufacturing.

AEROSPACE AND DEFENSE END-USE MARKETS OVERVIEW

Our largest end-use markets are the aerospace and defense markets and our revenues from these markets represented 93% of our total net revenues in 2019. These markets are serviced by suppliers which are stratified, from the lowest value provided to the highest, into four tiers: Tier Three, Tier Two, Tier One and original equipment manufacturers (“OEMs”). The OEMs provide the highest value and are also known as prime contractors (“Primes”). We derive a significant portion of our revenues from subcontracts with OEMs. As the prime contractor for various programs and platforms, the OEMs sell to their customers, who may include, depending upon the application, the U.S. Federal Government, foreign, state and local governments, global commercial airline carriers, regional jet carriers and various other customers. The OEMs also sell to global leasing companies that lease commercial aircraft. A significant portion of our revenues is earned from subcontracts with the Primes. Tier Three suppliers principally provide components or detailed parts. Tier Two suppliers provide more complex, value-added parts and may also assume more design risk, manufacturing risk, supply chain risk and project management risk than Tier Three suppliers. Tier One suppliers manufacture aircraft sections and purchase assemblies. We currently compete primarily with Tier Two and Tier Three suppliers. Our business growth strategy is to differentiate ourselves from competitors by providing more complex assemblies to our customers as a higher value added supplier.

Commercial Aerospace End-Use Market

The commercial aerospace end-use market is highly cyclical and is impacted by the level of global air passenger traffic in general, which in turn is influenced by global economic conditions, fleet fuel and maintenance costs and geopolitical developments. Revenues from the commercial aerospace end-use market represented 48% of our total net revenues for 2019.

Global economic growth, a primary driver for air travel, was 2.6% in 2019, below the long-term average of three percent. Passenger traffic in 2019 grew at an estimated four percent, close to the long-term average of approximately five percent. The grounding of The Boeing Company’s (“Boeing”) 737 MAX platform and suspension of the 737 MAX deliveries has slowed growth at certain airlines. While growth was solid across most major world regions, there continues to be variation between regions and airline business models. Despite some moderation in the growth rates, airlines operating in Asia Pacific and Europe, as well as low-cost-carriers globally, are leading the 2019 growth in passenger traffic. Air cargo traffic growth is expected to contract this year due to weak global trade growth.

In addition, airline financial performance also plays a role in the demand for new capacity. Airlines continue to focus on increasing revenue through alliances, partnerships, new marketing initiatives, and effective leveraging of ancillary services and related revenues. Airlines are also focusing on reducing costs and renewing fleets to leverage more efficient airplanes. Net profits in 2019 are expected to approximate $26 billion.

Further, the availability of internal or external funding impacts commercial aircraft build rates. Failure of our customers to obtain financing may result in cancellation or deferral of orders.

The long-term outlook for the industry continues to remain positive due to the fundamental drivers of air travel demand: economic growth and the increasing propensity to travel due to increased trade, globalization, and improved airline services driven by liberalization of air traffic rights between countries. Boeing’s 20 year forecast projections in their 2019 Annual Report on Form 10-K filed with the Securities and Exchange Commission (the “SEC”) projects a long-term average growth rate of almost five percent per year for passenger traffic and more than four percent for cargo traffic. Based on long-term global economic growth projections of almost three percent average annual gross domestic product (“GDP”) growth, Boeing projects a $6.8 trillion market for more than 44,000 new airplanes over the next 20 years. We believe we are well positioned given our product capabilities to participate in the steady projected growth rate for commercial air traffic and build rates for large commercial aircraft for the airframe manufacturing industry.

Defense End-Use Market

Our defense end-use market includes products used in military and space, including technologies and structures applications. The defense end-use market is highly cyclical and is impacted by the level of government defense spending. Government defense spending is impacted by national defense policies and priorities, political climates, fiscal budgetary constraints, U.S. Federal budget deficits, projected economic growth and the level of global military or security threats, or other conflicts. Revenues from the military and space end-use market in 2019 represented 45% of our total net revenues during 2019.

The Bipartisan Budget Act of 2019 raised the Budget Control Act limits on federal discretionary defense and non-defense spending for fiscal years 2020 ("FY2020") and 2021 ("FY2021"), reducing budget uncertainty and the risk of sequestration. The consolidated appropriations acts for FY2020, enacted in December 2019, provided FY2020 appropriations for government departments and agencies, including the United States Department of Defense ("U.S. DoD"), the National Aeronautics and Space Administration ("NASA"), and the Federal Aviation Administration ("FAA").

In addition, there continues to be uncertainty with respect to program-level appropriations for the U.S. DoD and other government agencies, including NASA. Future budget cuts or investment priority changes, including changes associated with the authorizations and appropriations process, could result in reductions, cancellations, and/or delays of existing contracts or programs. Any of these impacts could have a material effect on our results of operations, financial position, and/or cash flows. For additional information related to our revenues from customers whose principal sales are to the U.S. Government and our direct sales to the U.S. Government, see "Risk Factors" contained within Part I, Item 1A of this Annual Report on Form 10-K ("Form 10-K").

INDUSTRIAL END-USE MARKETS OVERVIEW

Our industrial, medical and other (collectively, "Industrial") end-use markets are diverse and are impacted by the customers' needs for increasing electronic content and a desire to outsource. Factors expected to impact these markets include capital and industrial goods spending and general economic conditions. Our products are used in heavy industrial manufacturing systems and certain medical applications. Revenues from the Industrial end-use markets were 7% of our total net revenues during 2019.

We believe our business in these markets is stable and we are well positioned in these markets.

SALES AND MARKETING

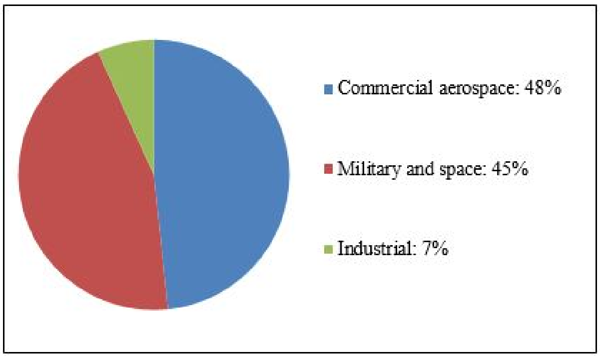
Our commercial revenues are substantially dependent on airframe manufacturers' production rates of new aircraft. Deliveries of new aircraft by airframe manufacturers are dependent on the financial capacity of its customers, primarily airlines and leasing companies, to purchase the aircraft. Thus, revenues from commercial aircraft could be affected as a result of changes in new aircraft orders, or the cancellation or deferral by airlines of purchases of ordered aircraft. Further, our revenues from commercial aircraft programs could be affected by changes in our customers' inventory levels and changes in our customers' aircraft production build rates. Even with the uncertainty related to the Boeing 737 MAX platform, in recent years, both major large aircraft manufacturers, Boeing and Airbus, have announced higher build rates due to increases in production for a majority of their existing programs, including more fully-developed models, and the introduction of new platforms.

Military components manufactured by us are employed in many of the country's front-line fighters, bombers, rotary-wing aircraft and support aircraft, as well as land and sea-based applications. Our defense business is diversified among a number of military manufacturers and programs. In the space sector, we continue to support various unmanned launch vehicle and satellite programs.

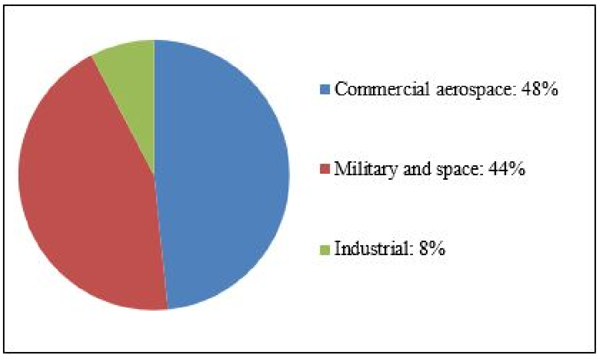
Our sales into the Industrial end-use markets are customer focused in the various markets and driven primarily by their capital spending and manufacturing outsourcing demands.

We continue to broaden and diversify our customer base in the end-use markets we serve by providing innovative product and service solutions through drawing on our core competencies, experience and technical expertise. Net revenues related to military and space, commercial aerospace, and Industrial end-use markets in 2019 and 2018 were as follows:

2019 Net Revenues of $721.1 Million



2018 Net Revenues of $629.3Million



Many of our contracts are fixed price contracts subject to termination at the convenience of the customer (as well as for default). In the event of termination for convenience, the customer generally is required to pay the costs we have incurred and certain other fees through the date of termination. Larger, long-term government subcontracts may have provisions for milestone payments, progress payments or cash advances for purchase of inventory.

Our marketing efforts primarily consist of developing strong, long-term relationships with our customers, which provide the basis for future sales. These close relationships allow us to gain a better insight into each customer's business needs, identify ways to provide greater value to the customer, and allow us to be designed in early in various products and/or high volume products.

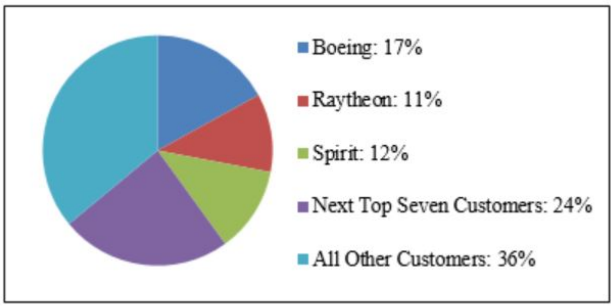
SEASONALITY

The timing of our revenues is governed by the purchasing patterns of our customers, and, as a result, we may not generate revenues equally during the year. However, no material portion of our business is considered to be seasonal.

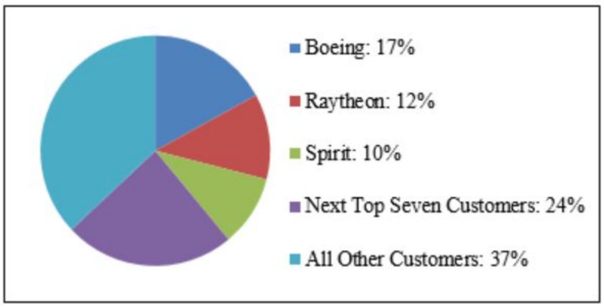
MAJOR CUSTOMERS

We currently generate the majority of our revenues from the aerospace and defense industries. As a result, we have significant revenues from certain customers. Boeing, Raytheon Company ("Raytheon"), and Spirit AeroSystems Holdings, Inc. ("Spirit") were each greater than 10 percent of our 2019 or 2018 net revenues. Revenues from our top ten customers, including Boeing, Raytheon, and Spirit were 64% of total net revenues during 2019. Net revenues by major customer for 2019 and 2018 were as follows:

2019 Net Revenues by Major Customer



2018 Net Revenues by Major Customer



Net revenues from our customers, except the U.S. Government, are diversified over a number of different military and space, commercial aerospace, industrial, medical and other products. For additional information on revenues from major customers, see Note 16 to our consolidated financial statements included in Part IV, Item 15(a) of this Form 10-K.

RESEARCH AND DEVELOPMENT

We perform concurrent engineering with our customers and product development activities under our self-funded programs, as well as under contracts with others. Concurrent engineering and product development activities are performed for commercial, military and space applications.

RAW MATERIALS AND COMPONENTS

Raw materials and components used in the manufacturing of our products include aluminum, titanium, steel and carbon fibers, as well as a wide variety of electronic interconnect and circuit card assemblies and components. These raw materials are generally available from a number of suppliers and are generally in adequate supply. However, from time to time, we have experienced increases in lead times for and limited availability of, aluminum, titanium and certain other raw materials and/or components. Moreover, certain components, supplies and raw materials for our operations are purchased from single source suppliers and occasionally, directed by our customers. In such instances, we strive to develop alternative sources and design modifications to minimize the potential for business interruptions.

COMPETITION

The markets we serve are highly competitive, and our products and services are affected by varying degrees of competition. We compete worldwide with domestic and international companies in most markets. These companies may have competitive advantages as a result of greater financial resources, economies of scale and bundled products and services that we do not offer. Additional information related to competition is discussed in Risk Factors contained within Part I, Item 1A of this Form 10-K. Our ability to compete depends principally upon the breadth of our technical capabilities, the quality of our goods and services, competitive pricing, product performance, design and engineering capabilities, new product innovation, the ability to solve specific customer needs, and customer relationships.

PATENTS AND LICENSES

We have several patents, but we do not believe that our operations are dependent upon any single patent or group of patents. In general, we rely on technical superiority, continual product improvement, exclusive product features, superior lead time, on-time delivery performance, quality, and customer relationships to maintain our competitive advantage.

BACKLOG AND REMAINING PERFORMANCE OBLIGATIONS

We define backlog as potential revenue that is based on customer placed purchase orders (“POs”) and long-term agreements (“LTAs”) with firm fixed price and expected delivery dates of 24 months or less. Backlog is subject to delivery delays or program cancellations, which are beyond our control. Backlog is affected by timing differences in the placement of customer orders and tends to be concentrated in several programs to a greater extent than our net revenues. Backlog in Industrial markets tends to be of a shorter duration and is generally fulfilled within a three month period. As a result of these factors, trends in our overall level of backlog may not be indicative of trends in our future net revenues. Backlog was $910.2 million at December 31, 2019, compared to $863.6 million at December 31, 2018. The increase in backlog was primarily in the military and space end-use markets.

We define remaining performance obligations as customer placed POs with firm fixed price and firm delivery dates. The majority of the LTAs do not meet the definition of a contract under Accounting Standards Codification 606 (“ASC 606”) and thus, the backlog amount is greater than the remaining performance obligations amount as defined under ASC 606. Similar to backlog, revenue based on remaining performance obligations is subject to delivery delays or program cancellations, which are beyond our control. Remaining performance obligations were $745.3 million at December 31, 2019.We anticipate recognizing an estimated $484.0 million of our remaining performance obligations during 2020.

ENVIRONMENTAL MATTERS

Our business, operations and facilities are subject to numerous stringent federal, state and local environmental laws and regulations issued by government agencies, including the Environmental Protection Agency (“EPA”). Among other matters, these regulatory authorities impose requirements that regulate the emission, discharge, generation, management, transport and disposal of hazardous and non-hazardous materials, pollutants and contaminants. These regulations govern public and private response actions to hazardous or regulated substances that threaten to release or have been released to the environment, or endanger human health, and they require us to obtain and maintain licenses and permits in connection with our operations. We may also be required to investigate and remediate the effects of the release or disposal of materials at sites associated with past and present operations. Additionally, this extensive regulatory framework imposes significant compliance burdens and risks on us. We anticipate that capital expenditures will continue to be required for the foreseeable future to upgrade and maintain our environmental compliance efforts, however, we do not expect such expenditures to be material in 2020 and the foreseeable future.

Structural Systems has been directed by California environmental agencies to investigate and take corrective action for groundwater contamination at its facilities located in Adelanto (a.k.a., El Mirage) and Monrovia, California. Based on currently available information, we have accrued $1.5 million at December 31, 2019 for our estimated liabilities related to these sites. For further information, see Note 15 in the accompanying notes to consolidated financial statements included in Part IV, Item 15(a) of this Form 10-K. In addition, see Risk Factors contained within Part I, Item 1A of this Form 10-K for certain risks related to environmental matters.

EMPLOYEES

As of December 31, 2019, we employed 2,800 people, of which 415 are subject to collective bargaining agreements expiring in June 2021 and April 2022. We believe our relations with our employees are good. See Risk Factors contained within Part I, Item 1A of this Form 10-K for additional information regarding certain risks related to our employees.

AVAILABLE INFORMATION

General information about us can be obtained from our website address at www.ducommun.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports, if any, are available free of charge on our website as soon as reasonably practicable after they are filed with or furnished to the SEC. Information included in our website is not incorporated by reference in this Annual Report on Form 10-K. The SEC also maintains a website at www.sec.gov that contains reports, proxy statements and other information regarding SEC registrants, including our company.

ITEM 1A. RISK FACTORS

Our business, financial condition, results of operations and cash flows may be affected by known and unknown risks, uncertainties and other factors. We have summarized below the significant, known material risks to our business. Additional risk factors not currently known to us or that we currently believe are immaterial may also impair our business, financial condition, results of operations and cash flows. Any of these risks, uncertainties and other factors could cause our future financial results to differ materially from recent financial results or from currently anticipated future financial results. The risk factors below should be considered together with the information included elsewhere in this Annual Report on Form 10-K ("Form 10-K") as well as other required filings by us with the SEC.

RISKS RELATED TO OUR CAPITAL STRUCTURE

Our indebtedness could limit our financing options, adversely affect our financial condition, and prevent us from fulfilling our debt obligations.

On December 20, 2019, we completed the refinancing of a portion of our existing debt by entering into a new revolving credit facility ("New Revolving Credit Facility") to replace the existing revolving credit facility that was entered into in November 2018 ("2018 Revolving Credit Facility") and entering into a new term loan ("New Term Loan"). The New Revolving Credit Facility is a $100.0 million senior secured revolving credit facility that matures on December 20, 2024 replacing the $100.0 million 2018 Revolving Credit Facility that would have matured on November 21, 2023. The New Term Loan is a $140.0 million senior secured term loan that matures on December 20, 2024. We also have an existing $240.0 million senior secured term loan that was entered into in November 2018 that matures on November 21, 2025 ("2018 Term Loan"). The original amounts available under the New Revolving Credit Facility, New Term Loan, and 2018 Term Loan (collectively, the "Credit Facilities") in aggregate, totaled $480.0 million. In conjunction with the closing of the New Revolving Credit Facility and the New Term Loan, we drew down the entire $140.0 million on the New Term Loan and used those proceeds to pay off and close the 2018 Revolving Credit Facility of $58.5 million, pay down a portion of the 2018 Term Loan of $56.0 million, pay the accrued interest associated with the amounts being paid down on the 2018 Revolving Credit Facility and 2018 Term Loan, pay the fees related to this transaction, and the remainder will be used for general corporate expenses.

At December 31, 2019, we had a total of $310.0 million of outstanding long-term debt under the Credit Facilities. The total long-term debt was primarily the result of our acquisitions, LaBarge, Inc. in 2011, Lightning Diversion Systems, LLC ("LDS") in September 2017, Certified Thermoplastics Co., LLC ("CTP") in April 2018, and Nobles on October 8, 2019.

Our ability to obtain additional financing or complete a debt refinancing in the future may be limited, as discussed below in this risk factor. We may have to undertake alternative financing plans, such as selling assets; reducing or delaying scheduled expansions and/or capital investments; or seeking various other forms of capital. Our ability to complete reasonable alternative financing plans may be affected by circumstances and economic events outside of our control. We cannot ensure that we would be able to refinance our debt or enter into alternative financing plans in adequate amounts on commercially reasonable terms, terms acceptable to us or at all, or that such plans guarantee that we would be able to meet our debt obligations.

Our level of debt could:

- limit our ability to obtain additional financing to fund capital expenditures, investments or acquisitions or other general corporate requirements;
- require a portion of our cash flows to be dedicated to debt service payments instead of other purposes, thereby reducing the amount of cash flows available for working capital, capital expenditures, investments or acquisitions or other general corporate purposes;
- increase our vulnerability to adverse changes in general economic, industry and competitive conditions;
- place us at a disadvantage compared to other, less leveraged competitors;
- expose us to the risk of increased borrowing costs and higher interest rates as almost 30% of our borrowings under our Credit Facilities bear interest at variable rates, which could further adversely impact our cash flows;
- limit our flexibility to plan for and react to changes in our business and the industry in which we compete;
- restrict us from making strategic acquisitions;
- expose us to risk of unfavorable changes in the global credit markets; and
- make it more difficult for us to satisfy our obligations with respect to the Credit Facilities and our other debt.

The occurrence of any one of these events could have an adverse effect on our business, financial condition, results of operations and ability to satisfy our obligations in respect of our outstanding debt.

We require a considerable amount of cash to run our business.

Our ability to make payments on our debt in the future and to fund planned capital expenditures and working capital needs, will depend upon our ability to generate significant cash in the future. Our ability to generate cash is subject to economic, financial, competitive, legislative, regulatory and other factors that may be beyond our control.

On December 20, 2019, we completed the refinancing of a portion of our existing debt by entering into the New Revolving Credit Facility to replace the 2018 Revolving Credit Facility and entering into the New Term Loan. The New Revolving Credit Facility is a $100.0 million senior secured revolving credit facility that matures on December 20, 2024 replacing the $100.0 million 2018 Revolving Credit Facility that would have matured on November 21, 2023. The New Term Loan is a $140.0 million senior secured term loan that matures on December 20, 2024. We also have the 2018 Term Loan of $240 million senior secured term loan that matures on November 21, 2025. In conjunction with the closing of the New Revolving Credit Facility and the New Term Loan, we drew down the entire $140.0 million on the New Term Loan and used those proceeds to pay off and close the 2018 Revolving Credit Facility of $58.5 million, pay down a portion of the 2018 Term Loan of $56.0 million, pay the accrued interest associated with the amounts being paid down on the 2018 Revolving Credit Facility and 2018 Term Loan, pay the fees related to this transaction, with the remainder to be used for general corporate expenses. We are required to make installment payments of 1.25% of the initial outstanding principal balance of the New Term Loan amount on a quarterly basis in addition to making installment payments of 0.25% of the outstanding principal balance of the 2018 Term Loan amount on a quarterly basis. In addition, if we meet the annual excess cash flow threshold, we will be required to make excess flow payments on an annual basis. Further, the undrawn portion of the commitment of the New Revolving Credit Facility is subject to a commitment fee ranging from 0.175% to 0.275%, based upon the consolidated total net adjusted leverage ratio. In October 2015, we entered into interest rate cap hedges designated as cash flow hedges, with a portion of these interest rate cap hedges maturing on a quarterly basis, and a final quarterly maturity date of June 2020 with notional value in aggregate, totaling $135.0 million. At December 31, 2019, the outstanding balance on the Credit Facilities was $310.0 million with an average interest rate of 6.87%. Should interest rates increase significantly, even though $81.0 million of our debt was hedged, our debt service cost will increase. Any inability to generate sufficient cash flow could have a material adverse effect on our financial condition or results of operations.

While we expect to meet all of our financial obligations, we cannot ensure that our business will generate sufficient cash flow from operations in an amount sufficient to enable us to pay our debt or to fund our other liquidity needs.

We require a considerable amount of cash to fund our anticipated voluntary principal prepayments on our Credit Facilities.

Our ability to continue to reduce the debt outstanding under our Credit Facilities through voluntary principal prepayments will be a contributing factor to our ability to keep our interest rate towards the lower end of the interest rate range as defined in the Credit Facilities. Our ability to make such prepayments will depend upon our ability to generate significant cash in the future. We cannot ensure that our business will generate sufficient cash flow from operations to fund any such prepayments.

The covenants in the credit agreement to our Credit Facilities impose restrictions that may limit our operating and financial flexibility.

We are required to comply with a leverage covenant as defined in the New Revolving Credit Facility agreement. The leverage covenant is defined as Consolidated Funded Indebtedness less unrestricted cash and cash equivalents in excess of $5.0 million, divided by consolidated earnings before interest, taxes and depreciation and amortization ("EBITDA").

At December 31, 2019, we were in compliance with the leverage covenant under the Credit Facilities. However, there is no assurance that we will continue to be in compliance with the leverage covenant in future periods.

The Credit Facilities' agreements contains a number of significant restrictions and covenants that limit our ability, among other things, to incur additional indebtedness, to create liens, to make certain payments, investments, to engage in transactions with affiliates, to sell certain assets or enter into mergers.

These covenants could materially and adversely affect our ability to finance our future operations or capital needs. Furthermore, they may restrict our ability to expand, pursue our business strategies and otherwise conduct our business. Our ability to comply with these covenants may be affected by circumstances and events beyond our control, such as prevailing economic conditions and changes in regulations, and we cannot ensure that we will be able to comply with such covenants. These restrictions also limit our ability to obtain future financings to withstand a future downturn in our business or the economy in general.

A breach of any covenant in the Credit Facilities could result in a default under the Credit Facilities agreements. A default, if not waived, could result in acceleration of the debt outstanding under the agreement. A default could permit our lenders to foreclose on any of our assets securing such debt. Even if new financing were available at that time, it may not be on terms or amounts that are acceptable to us or terms as favorable as our current agreements. If our debt is in default for any reason, our business, results of operations and financial condition could be materially and adversely affected.

We may be adversely affected by changes in LIBOR reporting practices or the method in which LIBOR is determined.

In July 2017, the Financial Conduct Authority, the authority that regulates London Interbank Offering Rate ("LIBOR"), announced it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. The Alternative Reference Rates Committee ("ARRC") has proposed that the Secured Overnight Financing Rate ("SOFR") is the rate that represents the best practice as the alternative to USD-LIBOR for use in derivatives and other financial contracts that are currently indexed to USD-LIBOR. ARRC has proposed a paced market transition plan to SOFR from USD-LIBOR, and organizations are currently working on industry wide and/or company specific transition from LIBOR to an alternative that will not result in financial market disruptions, significant increases in benchmark rates, or financing costs to borrowers. The consequences of these developments cannot be entirely predicted, but could result in an increase in the cost of our variable rate debt.

The typical trading volume of our common stock may affect an investor's ability to sell significant stock holdings in the future without negatively impacting stock price.

The level of trading activity may vary daily and typically represents only a small percentage of outstanding shares. As a result, a stockholder who sells a significant amount of shares in a short period of time could negatively affect our share price.

Our amount of debt may require us to raise additional capital to fund acquisitions.

We may sell additional shares of common stock or other equity securities to raise capital in the future, which could dilute the value of an investor's holdings.

RISKS RELATED TO OUR BUSINESS

Our end-use markets are cyclical.

We sell our products into aerospace, defense, and industrial end-use markets, which are cyclical and have experienced periodic declines. Our sales are, therefore, unpredictable and may tend to fluctuate based on a number of factors, including global economic conditions, geopolitical developments and conditions, and other developments affecting our end-use markets and the customers served. Consequently, results of operations in any period should not be considered indicative of the operating results that may be experienced in any future period.

We depend upon a selected base of industries and customers, which subjects us to unique risks which may adversely affect us.

We currently generate a majority of our revenues from customers in the aerospace and defense industry. Our business depends, in part, on the level of new military and commercial aircraft orders. As a result, we have significant sales to certain customers. Sales to The Boeing Company ("Boeing") and Spirit AeroSystems Holdings, Inc. ("Spirit") comprise the majority of our commercial aerospace end-use market. A significant portion of our net sales in our military and space end-use markets are made under subcontracts with original equipment manufacturers ("OEMs"), under their prime contracts with the U. S. Government. We had significant sales to Lockheed Martin Corporation and Raytheon Company in 2019 in our defense technologies end-use market.

Our customers may experience delays in the launch of new products, labor strikes, diminished liquidity or credit unavailability, weak demand for their products, or other difficulties in their business. In addition, shifts in government spending priorities have caused and may continue to cause additional uncertainty in the placement of orders.

Our revenues from our top ten customers, which represented 64% of our total 2019 net revenues, were diversified over a number of different aerospace and defense products. Any significant change in production rates by these customers would have a material effect on our results of operations and cash flows. There is no assurance that our current significant customers will continue to buy products from us at current levels, or that we will retain any or all of our existing customers, or that we will be able to form new relationships with customers upon the loss of one or more of our existing customers. This risk may be further complicated by pricing pressures, competition prevalent in our industry and other factors. A significant reduction in sales to any of our major customers, the loss of a major customer, or a default of a major customer on accounts receivable could have a material adverse impact on our financial results.

In December 2019, Boeing announced plans to temporarily suspend 737 MAX production, starting in January 2020. Boeing is our largest customer and the 737 MAX is our highest revenue platform. In January 2020, Boeing then announced they anticipate regulatory approval during mid-2020, which should enable 737 MAX deliveries to resume at that time. Later that same month, Boeing's President and Chief Executive Officer stated Boeing was committed to restarting production of the 737 MAX as soon as April 2020, in advance of receiving certification from regulators. Spirit, which is also one of our largest customers, announced in January 2020, they had reached an agreement with Boeing to restart production of the 737 MAX during the first quarter of 2020. Spirit anticipates slowly ramping up deliveries throughout the year to reach a total of 216 shipsets of 737 MAX to be delivered to Boeing in 2020. As such, our rate of production of 737 MAX products was impacted beginning in January 2020 and we undertook the necessary steps to adjust our cost structure, including personnel requirements. Further delays in regulatory approval of the 737 MAX will likely have an impact on our production rates though we anticipate resuming shipment of products to Spirit in March 2020 and to Boeing as soon as April 2020. In addition, we expect revenue growth with our other commercial customers and defense OEMs (also known as prime contractors) to help mitigate this risk, with the anticipation we will be able to offset the majority of the 737 MAX impact on our revenues.

We generally make sales under purchase orders and contracts that are subject to cancellation, modification or rescheduling. Changes in the economic environment and the financial condition of the industries we serve could result in customer cancellation of contractual orders or requests for rescheduling. Some of our contracts have specific provisions relating to schedule and performance, and failure to deliver in accordance with such provisions could result in cancellations, modifications, rescheduling and/or penalties, in some cases at the customers' convenience and without prior notice. While we have normally recovered our direct and indirect costs plus profit, such cancellations, modifications, or rescheduling that cannot be replaced in a timely fashion, could have a material adverse effect on our financial results.

A significant portion of our business depends upon U.S. Government defense spending.

We derive a significant portion of our business from customers whose principal sales are to the U.S. Government. Accordingly, the success of our business depends upon government spending generally or for specific departments or agencies in particular. Such spending, among other factors, is subject to the uncertainties of governmental appropriations and national defense policies and priorities, constraints of the budgetary process, timing and potential changes in these policies and priorities, and the adoption of new laws or regulations or changes to existing laws or regulations.

These and other factors could cause the government and government agencies, or prime contractors that use us as a subcontractor, to reduce their purchases under existing contracts, to exercise their rights to terminate contracts for convenience or to abstain from exercising options to renew contracts, any of which could have a material adverse effect on our business, financial condition and results of operations.

Further, the levels of U.S. Department of Defense (“U.S. DoD”) spending in future periods are difficult to predict and are impacted by numerous factors such as the political environment, U.S. foreign policy, macroeconomic conditions and the ability of the U.S. Government to enact relevant legislation such as the authorization and appropriations bills. The Budget Control Act (“2011 Act”) established limits on U.S. government discretionary spending, including a reduction of defense spending between the 2012 and 2021 U.S. Government fiscal years. Accordingly, long-term uncertainty remains with respect to overall levels of defense spending and it is likely that U.S. Government discretionary spending levels will continue to be subject to pressure.

We are subject to extensive regulation and audit by the Defense Contract Audit Agency.

The accuracy and appropriateness of certain costs and expenses used to substantiate our direct and indirect costs for the U.S. Government contracts are subject to extensive regulation and audit by the Defense Contract Audit Agency, an arm of the U.S. DoD. Such audits and reviews could result in adjustments to our contract costs and profitability. However, we cannot ensure the outcome of any future audits and adjustments may be required to reduce net sales or profits upon completion and final negotiation of audits. If any audit or review were to uncover inaccurate costs or improper activities, we could be subject to penalties and sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from conducting future business with the U.S. Government. Any such outcome could have a material adverse effect on our financial results.

We are subject to a number of procurement laws and regulations. Our business and our reputation could be adversely affected if we fail to comply with these laws.

We must comply with and are affected by laws and regulations relating to the award, administration and performance of U.S. Government contracts. Government contract laws and regulations affect how we do business with our customers and impose certain risks and costs on our business. A violation of specific laws and regulations, by us, our employees, or others working on our behalf, such as a supplier or a venture partner, could harm our reputation and result in the imposition of fines and penalties, the termination of our contracts, suspension or debarment from bidding on or being awarded contracts, loss of our ability to export products or services and civil or criminal investigations or proceedings.

In some instances, these laws and regulations impose terms or rights that are different from those typically found in commercial transactions. For example, the U.S. Government may terminate any of our customers’ government contracts and subcontracts either at its convenience or for default based on our performance. Upon termination for convenience of a fixed-price type contract, we normally are entitled to receive the purchase price for delivered items, reimbursement for allowable costs for work-in-process and an allowance for profit on the contract or adjustment for loss if completion of performance would have resulted in a loss.

Contracts with some of our customers, including Federal government contracts, contain provisions which give our customers a variety of rights that are unfavorable to us and the OEMs to whom we provide products and services, including the ability to terminate a contract at any time for convenience.

Contracts with some of our customers, including Federal government contracts, contain provisions and are subject to laws and regulations that provide rights and remedies not typically found in commercial contracts. These provisions may allow our customers to:

- terminate existing contracts, in whole or in part, for convenience, as well as for default, or if funds for contract performance for any subsequent year become unavailable;
- terminate existing contracts if we are suspended or debarred from doing business with the federal government or with a governmental agency;
- prohibit future procurement awards with a particular agency as a result of a finding of an organizational conflict of interest based upon prior related work performed for the agency that would give a contractor an unfair advantage over competing contractors; and
- claim rights in products and systems produced by us.

If the U.S. Government terminates a contract for convenience, the counterparty with whom we have contracted on a subcontract may terminate its contract with us. As a result of any such termination, whether on a direct government contract or subcontract, we may recover only our incurred or committed costs, settlement expenses and profit on work completed prior to the termination. If the U.S. Government terminates a direct contract with us for default, we may not even recover those amounts and instead may be liable for excess costs incurred by the U.S. Government in procuring undelivered items and services from another source.

In addition, the U.S. Government is typically required to open all programs to competitive bidding and, therefore, may not automatically renew any of its prime contracts. If one or more of our customers' government prime or subcontracts is terminated or canceled, our failure to replace sales generated from such contracts would result in lower sales and could have an adverse effect on our business, results of operations and financial condition.

Further consolidation in the aerospace industry could adversely affect our business and financial results.

The aerospace and defense industry is experiencing significant consolidation, including our customers, competitors and suppliers. Consolidation among our customers may result in delays in the awarding of new contracts and losses of existing business. Consolidation among our competitors may result in larger competitors with greater resources and market share, which could adversely affect our ability to compete successfully. Consolidation among our suppliers may result in fewer sources of supply and increased cost to us.

Our growth strategy includes evaluating selected acquisitions, which entails certain risks to our business and financial performance.

We have historically achieved a portion of our growth through acquisitions and expect to evaluate selected future acquisitions as part of our strategy for growth. Any acquisition of another business entails risks and it is possible that we may not realize the expected benefits from an acquisition or that an acquisition could adversely affect our existing operations. Acquisitions entail certain risks, including:

- difficulty in integrating the operations and personnel of the acquired company within our existing operations or in maintaining uniform standards;
- loss of key employees or customers of the acquired company;
- the failure to achieve anticipated synergies;
- unrecorded liabilities of acquired companies that we fail to discover during our due diligence investigations or that are not subject to indemnification or reimbursement by the seller; and
- management and other personnel having their time and resources diverted to evaluate, negotiate and integrate acquisitions.

We may not be successful in achieving expected operating efficiencies and sustaining or improving operating expense reductions, and may experience business disruptions associated with restructuring, performance center consolidations, realignment, cost reduction, and other strategic initiatives.

In recent years, we have implemented a number of restructuring, realignment, and cost reduction initiatives, including performance center consolidations, organizational realignments, and reductions in our workforce. While we have realized some efficiencies from these actions, we may not realize the benefits of these initiatives to the extent we anticipated. Further, such benefits may be realized later than expected, and the ongoing difficulties in implementing these measures may be greater than anticipated, which could cause us to incur additional costs or result in business disruptions. In addition, if these measures are not successful or sustainable, we may have to undertake additional realignment and cost reduction efforts, which could result in significant additional charges. Moreover, if our restructuring and realignment efforts prove ineffective, our ability to achieve our other strategic and business plan goals may be adversely impacted.

We rely on our suppliers to meet the quality and delivery expectations of our customers.

Our ability to deliver our products and services on schedule and to satisfy specific quality levels is dependent upon a variety of factors, including execution of internal performance plans, availability of raw materials, internal and supplier produced parts and structures, conversion of raw materials into parts and assemblies, and performance of suppliers and others.

We rely on numerous third-party suppliers for raw materials and a large proportion of the components used in our production process. Certain of these raw materials and components are available only from single sources or a limited number of suppliers, or similarly, customers' specifications may require us to obtain raw materials and/or components from a single source or certain suppliers. Many of our suppliers are small companies with limited financial resources and manufacturing capabilities. We do not currently have the ability to manufacture these components ourselves. These and other factors, including import tariffs, the loss of a critical supplier or raw materials and/or component shortages, could cause disruptions or cost inefficiencies in our operations. Additionally, our competitors that have greater direct purchasing power, may have product cost advantages which could have a material adverse effect on our financial results.

We use estimates when bidding on fixed-price contracts. Changes in our estimates could adversely affect our financial results.

We enter into contracts providing for a firm, fixed-price for the sale of some of our products regardless of the production costs incurred by us. In many cases, we make multi-year firm, fixed-price commitments to our customers, without assurance that our anticipated production costs will be achieved. Contract bidding and accounting require judgment relative to assessing risks, estimating contract net sales and costs, including estimating cost increases over time and efficiencies to be gained, and making assumptions for supplier sourcing and quality, manufacturing scheduling and technical issues over the life of the contract. Such assumptions can be particularly difficult to estimate for contracts with new customers. Inaccurate estimates of these costs could result in reduced profits or incurred losses. Due to the significance of the judgments and estimates involved, it is possible that materially different amounts could be obtained if different assumptions were used or if the underlying circumstances were to change. Therefore, any changes in our underlying assumptions, circumstances or estimates could have a material adverse effect on our financial results.

As we move up the value chain to become a more value added supplier, enhanced design, product development, manufacturing, supply chain project management and other skills will be required.

We may encounter difficulties as we execute our growth strategy to move up the value chain to become a more value added supplier of more complex assemblies. Difficulties we may encounter include, but are not limited to, the need for enhanced and expanded product design skills, enhanced ability to control and influence our suppliers, enhanced quality control systems and infrastructure, enhanced large-scale project management skills, and expanded industry certifications. Assuming incremental project design responsibilities would require us to assume additional risk in developing cost estimates and could expose us to increased risk of losses. There can be no assurance that we will be successful in obtaining the enhanced skills required to move up the value chain or that our customers will outsource such functions to us.

Risks associated with operating and conducting our business outside the United States could adversely impact us.

We have manufacturing facilities in Thailand and Mexico and also derive a portion of our net revenues from direct foreign sales. Further, our customers may derive portions of their revenues from non-U.S. customers. As a result, we are subject to the risks of conducting and operating our business internationally, including:

- political instability;
- economic and geopolitical developments and conditions;
- compliance with a variety of international laws, as well as U.S. laws affecting the activities of U.S. companies conducting business abroad, including, but not limited to, the Foreign Corrupt Practices Act;
- imposition of taxes, export controls, tariffs, embargoes and other trade restrictions;
- difficulties repatriating funds or restrictions on cash transfers; and
- potential for new tariffs imposed on imports by the U.S. administration.

While the impact of these factors is difficult to predict, we believe any one or more of these factors could have a material adverse effect on our financial results.

Goodwill and/or other assets could be impaired in the future, which could result in substantial charges.

Goodwill is tested for impairment on an annual basis as of the first day of our fourth quarter or more frequently if events or circumstances occur which could indicate potential impairment. In assessing the recoverability of goodwill, management is required to make certain critical estimates and assumptions. These estimates and assumptions include projected sales levels, including the addition of new customers, programs or platforms and increased content on existing programs or platforms, improvements in manufacturing efficiency, and reductions in operating costs. Due to many variables inherent in the estimation of a business's fair value and the relative size of our recorded goodwill, differences in estimates and assumptions may have a material effect on the results of our impairment analysis. If any of these or other estimates and assumptions are not realized in the future, or if market multiples decline, we may be required to record an impairment charge for goodwill.

We also test intangible assets with indefinite life periods for potential impairment annually and on an interim basis if there are indicators of potential impairment.

In addition, we evaluate amortizable intangible assets, fixed assets, and production cost of contracts for impairment if there are indicators of a potential impairment.

Further, impairment charges may be incurred against other intangible assets or long-term assets if asset utilization declines, customer demand declines or other circumstances indicate that the asset carrying value may not be recoverable.

Our production cost of contracts as of December 31, 2019 was $9.4 million or 1% of total assets. Our goodwill and other intangible assets as of December 31, 2019 were $309.3 million, or 39% of total assets. See “Goodwill and Indefinite-Lived Intangible Assets” in Note 7 of our consolidated financial statements included in Part IV, Item 15(a) of this Form 10-K for further information.

OTHER RISKS

Our operations are subject to numerous extensive, complex, costly and evolving laws, regulations and restrictions, and failure to comply with these laws, regulations and restrictions could subject us to penalties and sanctions that could harm our business.

Prime contracts with our major customers that have contracts with various agencies of the U.S. Government are subject to numerous laws and regulations which affect how we do business with our customers and may impose added costs to our business. As a result, our contracts and operations are subject to numerous, extensive, complex, costly and evolving laws, regulations and restrictions, principally by the U.S. Government or their agencies. These laws, regulations and restrictions govern items including, but not limited to, the formation, administration and performance of U.S. Government contracts, disclosure of cost and pricing data, civil penalties for violations of false claims to the U.S. Government for payment, defining reimbursable costs, establishing ethical standards for the procurement process and controlling the import and export of defense articles and services.

Noncompliance could expose us to liability for penalties, including termination of our contracts and subcontracts, disqualification from bidding on future U.S. Government contracts and subcontracts, suspension or debarment from U.S. Government contracting and various other fines and penalties**.** Noncompliance found by any one agency could result in fines, penalties, debarment or suspension from receiving additional contracts with all U.S. Government agencies. Given our dependence on U.S. Government business, suspension or debarment could have a material adverse effect on our financial results.

In addition, the U.S. Government may revise its procurement practices or adopt new contract rules and regulations, at any time, including increased usage of fixed-price contracts and procurement reform. Such changes could impair our ability to obtain new contracts or subcontracts or renew contracts or subcontracts under which we currently perform when those contracts are put up for competitive bidding. Any new contracting methods could be costly or administratively difficult for us to implement and could adversely affect our future net revenues.

In addition, our international operations subject us to numerous U.S. and foreign laws and regulations, including, without limitation, regulations relating to import-export control, technology transfer restrictions, repatriation of earnings, exchange controls, the Foreign Corrupt Practices Act and the anti-boycott provisions of the U.S. Export Administration Act. Changes in regulations or political environments may affect our ability to conduct business in foreign markets including investment, procurement and repatriation of earnings. Failure by us or our sales representatives or consultants to comply with these laws and regulations could result in certain liabilities and could possibly result in suspension or debarment from government contracts or suspension of our export privileges, which could have a material adverse effect on our financial results.

Customer pricing pressures could reduce the demand and/or price for our products and services.

The markets we serve are highly competitive and price sensitive. We compete worldwide with a number of domestic and international companies that have substantially greater manufacturing, purchasing, marketing and financial resources than we do. Many of our customers have the in-house capability to fulfill their manufacturing requirements. Our larger competitors may be able to compete more effectively for very large-scale contracts than we can by providing different or greater capabilities or benefits such as technical qualifications, past performance on large-scale contracts, geographic presence, price and availability of key professional personnel. If we are unable to successfully compete for new business, our net revenues growth and operating margins may decline.

Several of our major customers have completed extensive cost containment efforts and we expect continued pricing pressures in 2020 and beyond. Competitive pricing pressures may have an adverse effect on our financial condition and operating results.

Further, there can be no assurance that competition from existing or potential competitors in other segments of our business will not have a material adverse effect on our financial results. If we do not continue to compete effectively and win contracts, our future business, financial condition, results of operations and our ability to meet our financial obligations may be materially compromised.

Our products and processes are subject to risk of obsolescence as a result of changes in technology and evolving industry and regulatory standards.

The future success of our business depends in large part upon our and our customers' ability to maintain and enhance technological capabilities, develop and market manufacturing services that meet changing customer needs and successfully anticipate or respond to technological advances in manufacturing processes on a cost-effective and timely basis, while meeting evolving industry and regulatory standards. To address these risks, we invest in product design and development, and incur related capital expenditures. There can be no guarantee that our product design and development efforts will be successful, or that funds required to be invested in product design and development or incurred as capital expenditures will not increase materially in the future.

Environmental liabilities could adversely affect our financial results.

We are subject to various federal, local, and foreign environmental laws and regulations, including those relating to the use, storage, transport, discharge and disposal of hazardous and non-hazardous chemicals and materials used and emissions generated during our manufacturing process. We do not carry insurance for these potential environmental liabilities. Any failure by us to comply with present or future regulations could subject us to future liabilities or the suspension of production, which could have a material adverse effect on our financial results. Moreover, some environmental laws relating to contaminated sites can impose joint and several liability retroactively regardless of fault or the legality of the activities giving rise to the contamination. Compliance with existing or future environmental laws and regulations may require extensive capital expenditures, increase our cost or impact our production capabilities. Even if such expenditures are made, there can be no assurance that we will be able to comply. We have been directed to investigate and take corrective action for groundwater contamination at certain site and our ultimate liability for such matters will depend upon a number of factors. See Note 15 to our consolidated financial statements included in Part IV, Item 15(a) of this Form 10-K for further information.

Cyber security attacks, internal system or service failures may adversely impact our business and operations.

Any system or service disruptions, including those caused by projects to improve our information technology systems, if not anticipated and appropriately mitigated, could disrupt our business and impair our ability to effectively provide products and related services to our customers and could have a material adverse effect on our business. We could also be subject to systems failures, including network, software or hardware failures, whether caused by us, third-party service providers, intruders or hackers, computer viruses, natural disasters, power shortages or terrorist attacks. Cyber security threats are evolving and include, but are not limited to, malicious software, unauthorized attempts to gain access to sensitive, confidential or otherwise protected information related to us or our products, our employees, customers or suppliers, or other acts that could lead to disruptions in our business. Any such failures could cause loss of data and interruptions or delays in our business, cause us to incur remediation costs, subject us to claims and damage our reputation. In addition, the failure or disruption of our communications or utilities could cause us to interrupt or suspend our operations or otherwise adversely affect our business. Our property and business interruption insurance may be inadequate to compensate us for all losses that may occur as a result of any system or operational failure or disruption which would adversely affect our business, results of operations and financial condition.

We may not have the ability to renew facilities leases on terms favorable to us and relocation of operations presents risks due to business interruption.

Certain of our manufacturing facilities and offices are leased and have lease terms that expire between 2021 and 2026. The majority of these leases provide renewal options at the fair market rental rate at the time of renewal, which, if renewed, could be significantly higher than our current rental rates. We may be unable to offset these cost increases by charging more for our products and services. Furthermore, continued economic conditions may continue to negatively impact and create greater pressure in the commercial real estate market, causing higher incidences of landlord default and/or lender foreclosure of properties, including properties occupied by us. While we maintain certain non-disturbance rights in most cases, it is not certain that such rights will in all cases be upheld and our continued right of occupancy in such instances could be potentially jeopardized. An occurrence of any of these events could have a material adverse effect on our financial results.

Additionally, if we choose to move any of our operations, those operations may be subject to additional relocation costs and associated risks of business interruption.

The occurrence of litigation in which we could be named as a defendant is unpredictable.

From time to time, we and our subsidiaries are involved in various legal and other proceedings that are incidental to the conduct of our business. While we believe no current proceedings, if adversely determined, could have a material adverse effect on our financial results, no assurances can be given. Any such claims may divert financial and management resources that would otherwise be used to benefit our operations and could have a material adverse effect on our financial results.

Product liability claims in excess of insurance could adversely affect our financial results and financial condition.

We face potential liability for property damage, personal injury, or death as a result of the failure of products designed or manufactured by us. Although we currently maintain product liability insurance (including aircraft product liability insurance), any material product liability not covered by insurance could have a material adverse effect on our financial condition, results of operations and cash flows.

Damage or destruction of our facilities caused by storms, earthquake, fires or other causes could adversely affect our financial results and financial condition.

We have operations located in regions of the U.S. that may be exposed to damaging storms, earthquakes, fires and other natural disasters. Although we maintain standard property casualty insurance covering our properties and may be able to recover costs associated with certain natural disasters through insurance, we do not carry any earthquake insurance because of the cost of such insurance. Many of our properties are located in Southern California, an area subject to earthquake activity. Our California facilities generated $239.5 million in net revenues during 2019. Even if covered by insurance, any significant damage or destruction of our facilities due to storms, earthquakes or other natural disasters could result in our inability to meet customer delivery schedules and may result in the loss of customers and significant additional costs to us. Thus, any significant damage or destruction of our properties could have a material adverse effect on our business, financial condition or results of operations.

We are dependent upon our ability to attract and retain key personnel.

Our success depends in part upon our ability to attract and retain key engineering, technical and managerial personnel, at both the executive and performance center level. We face competition for management, engineering and technical personnel from other companies and organizations. The loss of members of our senior management group, or key engineering and technical personnel, could negatively impact our ability to grow and remain competitive in the future and could have a material adverse effect on our financial results.

Labor disruptions by our employees could adversely affect our business.

As of December 31, 2019, we employed 2,800 people. Two of our performance centers are parties to collective bargaining agreements, covering 175 full time hourly employees in one of those performance centers and 240 full time hourly employees in the other performance center, and will expire in June 2021 and April 2022, respectively. Although we have not experienced any material labor-related work stoppage and consider our relations with our employees to be good, labor stoppages may occur in the future. If the unionized workers were to engage in a strike or other work stoppage, if we are unable to negotiate acceptable collective bargaining agreements with the unions or if other employees were to become unionized, we could experience a significant disruption of our operations, higher ongoing labor costs and possible loss of customer contracts, which could have an adverse effect on our business and results of operations.

Unanticipated changes in our tax provision or exposure to additional income tax liabilities could affect our profitability.

Significant judgment is required in determining our provision for income taxes. In the ordinary course of our business, there are transactions and calculations where the ultimate tax determination is uncertain. Furthermore, changes in income tax laws and regulations, or their interpretation, could result in higher or lower income tax rates assessed or changes in the taxability of certain sales or the deductibility of certain expenses, thereby affecting our income tax expense and profitability. For example, we recorded provisional estimates of the impact of the Tax Cuts and Jobs Act (the “2017 Tax Act”) enacted on December 22, 2017 in accordance with SEC Staff Accounting Bulletin No. 118 (“SAB 118”) in our 2017 consolidated financial statements. During 2018, these estimates were subject to further analysis and review which could have required adjustments, but no adjustments were required to be made in 2018. In addition, we are regularly under audit by tax authorities. The final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We occupy 28 owned or leased facilities, totaling 2.0 million square feet of manufacturing area and office space. At December 31, 2019, facilities which were in excess of 50,000 square feet each were occupied as follows:

Location	Segment	Square Feet	Expiration of Lease
Carson, California	Structural Systems	299,000	Owned
Monrovia, California	Structural Systems	274,000	Owned
Parsons, Kansas	Structural Systems	176,000	Owned
Coxsackie, New York	Structural Systems	151,000	Owned
Carson, California	Electronic Systems	117,000	2021
Phoenix, Arizona	Electronic Systems	100,000	2022
Joplin, Missouri	Electronic Systems	92,000	2023
Adelanto, California	Structural Systems	88,000	Owned
Orange, California	Structural Systems	80,000	Owned
Appleton, Wisconsin	Electronic Systems	77,000	Owned
Carson, California	Structural Systems	77,000	2024
Huntsville, Arkansas	Electronic Systems	69,000	2026
Joplin, Missouri	Electronic Systems	55,000	Owned
Tulsa, Oklahoma	Electronic Systems	55,000	Owned
Orange, California	Structural Systems	53,000	2024
Berryville, Arkansas	Electronic Systems	50,000	Owned

Management believes these properties are adequate to meet our current requirements, are in good condition and are suitable for their present use.

ITEM 3. LEGAL PROCEEDINGS

See Note 15 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for a description of our legal proceedings.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Our common stock is listed on the New York Stock Exchange under the symbol DCO. As of December 31, 2019, we had 173 holders of record of our common stock. We have not paid any dividends since the first quarter of 2011 and we do not expect to pay dividends for the foreseeable future. The following table sets forth the high and low closing prices per share of our common stock as reported on the New York Stock Exchange for the fiscal periods indicated:

	Years Ended December 31,			
	2019		2018	
	High	Low	High	Low
First Quarter	$ 46.27	$ 34.92	$ 30.84	$ 26.30
Second Quarter	$ 51.80	$ 39.02	$ 35.43	$ 28.17
Third Quarter	$ 46.97	$ 39.33	$ 40.84	$ 31.63
Fourth Quarter	$ 51.67	$ 39.34	$ 44.23	$ 33.83

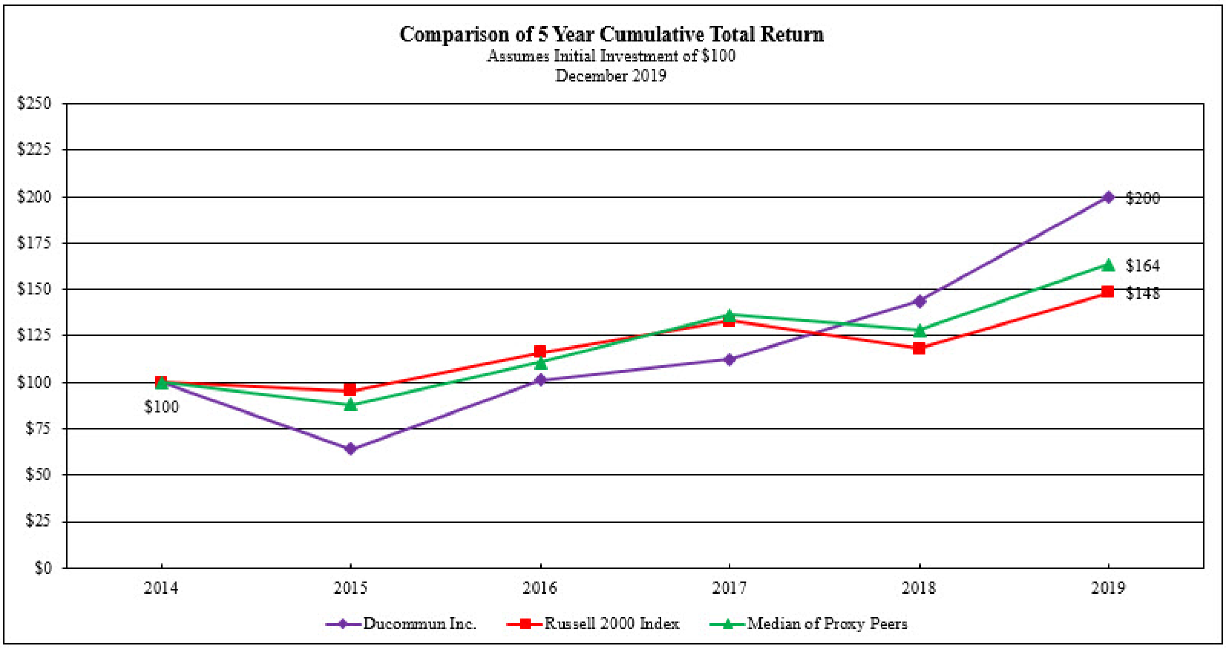
See “Part III, Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS” for information relating to shares to be issued under equity compensation plans.

Issuer Purchases of Equity Securities

None.

Performance Graph

The following graph compares the yearly percentage change in our cumulative total shareholder return with the cumulative total return of the Russell 2000 Index and the median of our 2020 Proxy Statement peers (“Median of Proxy Peers”) over a five year period, assuming the reinvestment of any dividends. A modified version of this graph over a three year period will be used in our 2020 Proxy Statement, assuming the reinvestment of any dividends. The graph is not necessarily indicative of future price performance:



ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with Part II, Item 7 and Part IV, Item 15(a) of this Annual Report on Form 10-K ("Form 10-K"):

	(In thousands, except per share amounts) Years Ended December 31,				
	2019(a)	2018(b)(c)	2017(d)(e)	2016(f)	2015(g)(h)
Net Revenues	$ 721,088	$ 629,307	$ 558,183	$ 550,642	$ 666,011
Gross Profit as a Percentage of Net Revenues	21.1%	19.5%	18.5%	19.3%	15.1%
Income (Loss) Before Taxes	37,763	10,271	7,609	38,113	(106,590)
Income Tax Expense (Benefit)	5,302	1,236	(12,468)	12,852	(31,711)
Net Income (Loss)	$ 32,461	$ 9,035	$ 20,077	$ 25,261	$ (74,879)
Per Common Share					
Basic earnings (loss) per share	$ 2.82	$ 0.79	$ 1.78	$ 2.27	$ (6.78)
Diluted earnings (loss) per share	$ 2.75	$ 0.77	$ 1.74	$ 2.24	$ (6.78)
Working Capital	$ 196,078	$ 157,547	$ 140,778	$ 139,635	$ 179,655
Total Assets	$ 790,429	$ 644,739	$ 566,753	$ 515,429	$ 557,081
Long-Term Debt, Including Current Portion	$ 307,887	$ 231,198	$ 216,055	$ 166,899	$ 240,687
Total Shareholders' Equity	$ 292,800	$ 256,825	$ 235,583	$ 212,103	$ 185,734

(a) The results for 2019 included Nobles' results of operations since the date of acquisition of October 8, 2019.
(b) The results for 2018 included CTP's results of operations since the date of acquisition in April 2018.
(c) The results for 2018 and 2017 included restructuring charges of $14.8 million and $8.8 million, respectively. See Note 4 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information.
(d) The results for 2017 included LDS' results of operations since the date of acquisition in September 2017.
(e) The results for 2017 included the adoption of the Tax Cuts and Jobs Act and as a result, we recorded a provisional deferred income tax benefit of $13.0 million related to the re-measurement for the year ended December 31, 2017. See Note 14 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information.
(f) The results for 2016 included a gain on divestitures, net in our Electronic Systems operating segment of $17.6 million related to the divestitures of our Pittsburgh and Miltec operations.
(g) The results for 2015 included a goodwill impairment charge in our Structural Systems operating segment and an indefinite-lived trade name intangible asset impairment charge in our Electronic Systems operating segment of $57.2 million and $32.9 million, respectively, resulting from our annual impairment testing.
(h) The results for 2015 included a loss on extinguishment of debt of $14.7 million related to the retirement of the $200.0 million senior unsecured notes and existing credit facility.

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

Overview

Ducommun Incorporated ("Ducommun," "the Company," "we," "us" or "our") is a leading global provider of engineering and manufacturing services for high-performance products and high-cost-of failure applications used primarily in the aerospace, defense, industrial, medical, and other industries. We differentiate ourselves as a full-service solution-based provider, offering a wide range of value-added products and services in our primary businesses of electronics, structures and integrated solutions. We operate through two primary business segments: Electronic Systems and Structural Systems, each of which is a reportable segment.

Highlights for the year ended December 31, 2019:

- Net revenues of $721.1 million
- Net income of $32.5 million, or $2.75 per diluted share
- Adjusted EBITDA of $92.3 million
- Completed the acquisition of Nobles Worldwide, Inc.

Non-GAAP Financial Measures

Adjusted earnings before interest, taxes, depreciation, amortization, stock-based compensation expense, restructuring charges, inventory purchase accounting adjustments, and loss on extinguishment of debt ("Adjusted EBITDA") was $92.3 million and $70.7 million for years ended December 31, 2019 and December 31, 2018, respectively.

When viewed with our financial results prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and accompanying reconciliations, we believe Adjusted EBITDA provides additional useful information to clarify and enhance the understanding of the factors and trends affecting our past performance and future prospects. We define these measures, explain how they are calculated, and provide reconciliations of these measures to the most comparable GAAP measure in the table below. Adjusted EBITDA and the related financial ratios, as presented in this Annual Report on Form 10-K ("Form 10-K"), are supplemental measures of our performance that are not required by, or presented in accordance with, GAAP. They are not a measurement of our financial performance under GAAP and should not be considered as alternatives to net income or any other performance measures derived in accordance with GAAP, or as an alternative to net cash provided by operating activities as measures of our liquidity. The presentation of these measures should not be interpreted to mean that our future results will be unaffected by unusual or nonrecurring items.

We use Adjusted EBITDA non-GAAP operating performance measures internally as complementary financial measures to evaluate the performance and trends of our businesses. We present Adjusted EBITDA and the related financial ratios, as applicable, because we believe that measures such as these provide useful information with respect to our ability to meet our operating commitments.

Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as substitutes for analysis of our results as reported under GAAP. Some of these limitations are:

- They do not reflect our cash expenditures, future requirements for capital expenditures or contractual commitments;
- They do not reflect changes in, or cash requirements for, our working capital needs;
- They do not reflect the significant interest expense or the cash requirements necessary to service interest or principal payments on our debt;
- Although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements;
- They are not adjusted for all non-cash income or expense items that are reflected in our statements of cash flows;
- They do not reflect the impact on earnings of charges resulting from matters unrelated to our ongoing operations; and
- Other companies in our industry may calculate Adjusted EBITDA differently from us, limiting their usefulness as comparative measures.

Because of these limitations, Adjusted EBITDA and the related financial ratios should not be considered as measures of discretionary cash available to us to invest in the growth of our business or as a measure of cash that will be available to us to meet our obligations. You should compensate for these limitations by relying primarily on our GAAP results and using Adjusted EBITDA only as supplemental information. See our consolidated financial statements contained in this Form 10-K.

However, in spite of the above limitations, we believe that Adjusted EBITDA is useful to an investor in evaluating our results of operations because these measures:

- Are widely used by investors to measure a company's operating performance without regard to items excluded from the calculation of such terms, which can vary substantially from company to company depending upon accounting methods and book value of assets, capital structure and the method by which assets were acquired, among other factors;
- Help investors to evaluate and compare the results of our operations from period to period by removing the effect of our capital structure from our operating performance; and
- Are used by our management team for various other purposes in presentations to our Board of Directors as a basis for strategic planning and forecasting.

The following financial items have been added back to or subtracted from our net income when calculating Adjusted EBITDA:

- Interest expense may be useful to investors for determining current cash flow;
- Income tax expense may be useful to investors because it represents the taxes which may be payable for the period and the change in deferred taxes during the period, and may reduce cash flow available for use in our business;
- Depreciation may be useful to investors because it generally represents the wear and tear on our property and equipment used in our operations;
- Amortization expense may be useful to investors because it represents the estimated attrition of our acquired customer base and the diminishing value of product rights;
- Stock-based compensation may be useful to our investors for determining current cash flow;
- Restructuring charges may be useful to our investors in evaluating our core operating performance;
- Purchase accounting inventory step-ups may be useful to our investors as they do not necessarily reflect the current or on-going cash charges related to our core operating performance; and
- Loss on extinguishment of debt may be useful to our investors for determining current cash flow.

Reconciliations of net income to Adjusted EBITDA and the presentation of Adjusted EBITDA as a percentage of net revenues were as follows:

	(Dollars in thousands) Years Ended December 31,		
	2019	2018	2017
Net income	$ 32,461	$ 9,035	$ 20,077
Interest expense	18,290	13,024	8,870
Income tax expense (benefit)	5,302	1,236	(12,468)
Depreciation	13,519	13,501	13,162
Amortization	14,786	11,795	9,683
Stock-based compensation expense	7,161	5,040	4,675
Restructuring charges (1)	—	14,792	8,838
Inventory purchase accounting adjustments (2)	511	622	1,235
Loss on extinguishment of debt	180	926	—
Other debt refinancing costs	77	697	—
Adjusted EBITDA	$ 92,287	$ 70,668	$ 54,072
% of net revenues	12.8%	11.2%	9.7%

(1) 2018 and 2017 included $0.1 million and $0.5 million, respectively, of restructuring charges that were recorded as cost of goods sold.
(2) 2019, 2018, and 2017 included inventory purchase accounting adjustments of inventory that was stepped up as part of our purchase price allocation from our acquisitions of Nobles Worldwide, Inc. (“Nobles”), Certified Thermoplastics Co., LLC (“CTP”) and Lightning Diversion Systems, LLC (“LDS”) on October 8, 2019, April 2018, and September 2017, respectively, and is part of our Structural Systems, Structural Systems, and Electronic Systems operating segment, respectively.

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RESULTS OF OPERATIONS

2019 Compared to 2018

The following table sets forth net revenues, selected financial data, the effective tax rate and diluted earnings per share:

	(Dollars in thousands, except per share data) Years Ended December 31,			
	2019	% of Net Revenues	2018	% of Net Revenues
Net Revenues	$ 721,088	100.0 %	$ 629,307	100.0 %
Cost of Sales	568,891	78.9 %	506,711	80.5 %
Gross Profit	152,197	21.1 %	122,596	19.5 %
Selling, General and Administrative Expenses	95,964	13.3 %	84,007	13.3 %
Restructuring Charges	—	— %	14,671	2.3 %
Operating Income	56,233	7.8 %	23,918	3.9 %
Interest Expense	(18,290)	(2.6)%	(13,024)	(2.1)%
Loss on Extinguishment of Debt	(180)	— %	(926)	(0.1)%
Other Income, Net	—	— %	303	— %
Income Before Taxes	37,763	5.2 %	10,271	1.7 %
Income Tax Expense	5,302	nm	1,236	nm
Net Income	$ 32,461	4.5 %	$ 9,035	1.4 %
Effective Tax Rate	14.0%	nm	12.0%	nm
Diluted Earnings Per Share	$ 2.75	nm	$ 0.77	nm

nm = not meaningful

Net Revenues by End-Use Market and Operating Segment

Net revenues by end-use market and operating segment during 2019 and 2018, respectively, were as follows:

		(Dollars in thousands) Years Ended December 31,		% of Net Revenues	
	Change	2019	2018	2019	2018
Consolidated Ducommun					
Military and space	$ 46,208	$ 323,800	$ 277,592	44.9%	44.1%
Commercial aerospace	44,981	348,503	303,522	48.3%	48.2%
Industrial	592	48,785	48,193	6.8%	7.7%
Total	$ 91,781	$ 721,088	$ 629,307	100.0%	100.0%
Electronic Systems					
Military and space	$ 28,526	$ 244,245	$ 215,719	67.8%	63.8%
Commercial aerospace	(6,613)	67,343	73,956	18.7%	21.9%
Industrial	592	48,785	48,193	13.5%	14.3%
Total	$ 22,505	$ 360,373	$ 337,868	100.0%	100.0%
Structural Systems					
Military and space	$ 17,682	$ 79,555	$ 61,873	22.1%	21.2%
Commercial aerospace	51,594	281,160	229,566	77.9%	78.8%
Total	$ 69,276	$ 360,715	$ 291,439	100.0%	100.0%

Net revenues for 2019 were $721.1 million compared to $629.3 million for 2018. The year-over-year increase was due to the following:

- $46.2 million higher revenues in our military and space end-use markets due to higher build rates on other military and space platforms, higher build rates on various missile platforms, and higher build rates on various military fixed-wing aircraft platforms; and
- $45.0 million higher revenues in our commercial aerospace end-use markets due to additional content and higher build rates on large aircraft platforms.

Net Revenues by Major Customers

A significant portion of our net revenues are from our top ten customers as follows:

	Years Ended December 31,	
	2019	2018
Boeing Company	16.6%	17.0%
Raytheon Company	11.0%	11.7%
Spirit AeroSystems Holdings, Inc.	12.2%	9.5%
Top ten customers(1)	63.5%	62.9%

(1) Includes The Boeing Company (“Boeing”), Raytheon Company (“Raytheon”), and Spirit AeroSystems Holdings, Inc. (“Spirit”).

The revenues from Boeing, Raytheon, and Spirit are diversified over a number of commercial, military and space programs and were generated by both operating segments.

Gross Profit

Gross profit consists of net revenues less cost of sales. Cost of sales includes the cost of production of finished products and other expenses related to inventory management, manufacturing quality, and order fulfillment. Gross profit margin increased to 21.1% in 2019 compared to 19.5% in 2018 due to favorable product mix and favorable manufacturing volume, partially offset by higher other manufacturing costs.

Selling, General and Administrative (“SG&A”) Expenses

SG&A expenses increased $12.0 million in 2019 compared to 2018 due to higher compensation and benefit costs of $5.5 million, higher one-time severance charges of $1.7 million, and higher acquisition related costs of $0.8 million.

Restructuring Charges

Restructuring charges decreased $14.8 million (of which zero and $0.1 million, respectively, was included in cost of sales) in 2019 compared to 2018 due to the restructuring plan that began in 2017 that was expected to increase operating efficiencies. See Note 4 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information on restructuring activities.

Interest Expense

Interest expense increased in 2019 compared to 2018 due to a higher outstanding balance on the Credit Facilities, reflecting the acquisitions of Nobles Worldwide, Inc. (“Nobles”) on October 8, 2019 and Certified Thermoplastics Co., LLC (“CTP”) in April 2018, and higher interest rates. See Note 9 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information on our long-term debt.

Loss on Extinguishment of Debt

Loss on extinguishment of debt for 2019 was related to the refinancing of our existing Credit Facilities in December 2019 which resulted in writing off of a portion of the unamortized debt issuance costs associated with the existing Credit Facilities of $0.2 million. The New Credit Facilities were utilized to pay off the existing Revolving Credit Facility and a portion of the existing Term Loan. See Note 9 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information on our long-term debt.

Income Tax Expense

We recorded an income tax expense of $5.3 million (an effective tax rate of 14.0%) in 2019, compared to $1.2 million (an effective tax rate of 12.0%) in 2018. The increase in the effective tax rate for 2019 compared to 2018 was primarily due to an increase in pre-tax income from $10.3 million in 2018 to $37.8 million in 2019 which caused tax incentives such as research and development tax credits and various discrete items to have an overall lower impact on our effective tax rate.

Our unrecognized tax benefits were $5.7 million and $5.3 million in 2019 and 2018, respectively. We record interest and penalty charge, if any, related to uncertain tax positions as a component of tax expense and unrecognized tax benefits. The amounts accrued for interest and penalty charges as of December 31, 2019 and 2018 were not significant. If recognized, $4.0 million would affect the effective income tax rate. As a result of statute of limitations set to expire in 2020, we expect decreases to our unrecognized tax benefits of approximately $2.0 million in the next twelve months.

We file U.S. Federal and state income tax returns. We are subject to examination by the Internal Revenue Service (“IRS”) for tax years after 2015 and by state taxing authorities for tax years after 2014. While we are no longer subject to examination prior to those periods, carryforwards generated prior to those periods may still be adjusted upon examination by the IRS or state taxing authority if they either have been or will be used in a subsequent period. We believe we have adequately accrued for tax deficiencies or reductions in tax benefits, if any, that could result from the examination and all open audit years.

Net Income and Earnings per Diluted Share

Net income and earnings per diluted share for 2019 were $32.5 million, or $2.75, compared to net income and earnings per diluted share for 2018 of $9.0 million, or $0.77. The increase in net income in 2019 compared to 2018 was due to an increase of $29.6 million in gross profit that was due to higher revenues and improved operating performance and lower restructuring charges of $14.8 million. The increases were partially offset by higher selling, general and administrative expenses of $12.0 million, higher interest expense of $5.3 million, and income tax expense of $4.1 million.

Business Segment Performance

We report our financial performance based upon the two reportable operating segments: Electronic Systems and Structural Systems. The results of operations differ between our reportable operating segments due to differences in competitors, customers, extent of proprietary deliverables and performance. The following table summarizes our business segment performance for 2019 and 2018:

	% Change	(Dollars in thousands) Years Ended December 31, 2019	2018	% of Net Revenues 2019	% of Net Revenues 2018
Net Revenues					
Electronic Systems	6.7%	$ 360,373	$ 337,868	50.0 %	53.7 %
Structural Systems	23.8%	360,715	291,439	50.0 %	46.3 %
Total Net Revenues	14.6%	$ 721,088	$ 629,307	100.0 %	100.0 %
Segment Operating Income					
Electronic Systems		$ 38,613	$ 30,916	10.7 %	9.2 %
Structural Systems		46,836	19,063	13.0 %	6.5 %
		85,449	49,979		
Corporate General and Administrative Expenses (1)		(29,216)	(26,061)	(4.1)%	(4.1)%
Total Operating Income		$ 56,233	$ 23,918	7.8 %	3.9 %
Adjusted EBITDA					
Electronic Systems					
Operating Income		$ 38,613	$ 30,916		
Other Income		—	119		
Depreciation and Amortization		14,170	14,223		
Restructuring Charges		—	4,776		
		52,783	50,034	14.6 %	14.8 %
Structural Systems					
Operating Income		46,836	19,063		
Other Income		—	184		
Depreciation and Amortization		13,663	10,525		
Restructuring Charges		—	7,897		
Inventory purchase accounting adjustments		511	622		
		61,010	38,291	16.9 %	13.1 %
Corporate General and Administrative Expenses (1)					
Operating Loss		(29,216)	(26,061)		
Depreciation and Amortization		472	548		
Stock-Based Compensation Expense		7,161	5,040		
Restructuring Charges		—	2,119		
Other Debt Refinancing Costs		77	697		
		(21,506)	(17,657)		
Adjusted EBITDA		$ 92,287	$ 70,668	12.8 %	11.2 %
Capital Expenditures					
Electronic Systems		$ 5,508	$ 6,719		
Structural Systems		13,338	9,104		
Corporate Administration		—	514		
Total Capital Expenditures		$ 18,846	$ 16,337		

(1) Includes costs not allocated to either the Structural Systems or Electronic Systems operating segments.

Electronic Systems

Electronic Systems' net revenues in 2019 compared to 2018 increased $22.5 million due to the following:

- $28.5 million higher revenues in our military and space end-use markets due to increased demand on other military and space platforms, increased demand for military fixed-wing aircraft, increased demand for various missile platforms, partially offset by lower build rates military rotary-wing aircraft; partially offset by
- $6.6 million lower revenues in our commercial aerospace end-use markets due to lower build rates on other commercial aerospace and lower build rates on large aircraft platforms, partially offset by higher demand for commercial rotary-wing aircraft.

Electronic Systems segment operating income in 2019 compared to 2018 increased $7.7 million due to favorable product mix and lower restructuring charges, partially offset by unfavorable manufacturing volume.

Structural Systems

Structural Systems' net revenues in 2019 compared to 2018 increased $69.3 million due to the following:

- $51.6 million higher revenues in commercial aerospace end-use markets due to higher build rates on large aircraft platforms; and
- $17.7 million higher revenues in military and space end-use markets due to higher build rates on military rotary-wing aircraft platforms and higher build rates on other military and space platforms.

The Structural Systems operating income in 2019 compared to 2018 increased $27.8 million due to favorable product mix, favorable manufacturing volume, lower restructuring charges, and improved operating performance, partially offset by higher other manufacturing costs.

Corporate General and Administrative ("CG&A") Expenses

CG&A expenses in 2019 compared to 2018 increased $3.2 million due to higher compensation and benefit costs of $2.7 million, one-time severance charges of $1.7 million, and higher other corporate related expenses of $0.9 million, partially offset by lower restructuring charges of $2.1 million.

Backlog

We define backlog as customer placed purchase orders ("POs") and long-term agreements ("LTAs") with firm fixed price and expected delivery dates of 24 months or less. The majority of the LTAs do not meet the definition of a contract under ASC 606 and thus, the backlog amount disclosed below is greater than the remaining performance obligations amount disclosed in Note 1 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K. Backlog is subject to delivery delays or program cancellations, which are beyond our control. Backlog is affected by timing differences in the placement of customer orders and tends to be concentrated in several programs to a greater extent than our net revenues. Backlog in industrial markets tends to be of a shorter duration and is generally fulfilled within a three month period. As a result of these factors, trends in our overall level of backlog may not be indicative of trends in our future net revenues.

The increase in backlog was primarily in the military and space end-use markets. The following table summarizes our backlog for 2019 and 2018:

	(Dollars in thousands) December 31,		
	Change	2019	2018
Consolidated Ducommun			
Military and space	$ 109,213	$ 451,293	$ 342,080
Commercial aerospace	(53,093)	430,642	483,735
Industrial	(9,488)	28,286	37,774
Total	$ 46,632	$ 910,221	$ 863,589
Electronic Systems			
Military and space	$ 67,186	$ 311,027	$ 243,841
Commercial aerospace	30,332	75,719	45,387
Industrial	(9,488)	28,286	37,774
Total	$ 88,030	$ 415,032	$ 327,002
Structural Systems			
Military and space	$ 42,027	$ 140,266	$ 98,239
Commercial aerospace	(83,425)	354,923	438,348
Total	$ (41,398)	$ 495,189	$ 536,587

2018 Compared to 2017

See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2018 Annual Report on Form 10-K filed with the SEC.

LIQUIDITY AND CAPITAL RESOURCES

Available Liquidity

Total debt, the weighted-average interest rate, cash and cash equivalents and available credit facilities were as follows:

	(Dollars in millions) December 31,	
	2019	2018
Total debt, including long-term portion	$ 310.0	$ 233.0
Weighted-average interest rate on debt	6.87%	4.71%
Term Loans interest rate	6.28%	4.15%
Cash and cash equivalents	$ 39.6	$ 10.3
Unused Revolving Credit Facility	$ 99.8	$ 99.7

On December 20, 2019, we completed the refinancing of a portion of our existing debt by entering into a new revolving credit facility ("New Revolving Credit Facility") to replace the existing revolving credit facility that was entered into in November 2018 ("2018 Revolving Credit Facility") and entering into a new term loan ("New Term Loan"). The New Revolving Credit Facility is a $100.0 million senior secured revolving credit facility that matures on December 20, 2024 replacing the $100.0 million 2018 Revolving Credit Facility that would have matured on November 21, 2023. The New Term Loan is a $140.0 million senior secured term loan that matures on December 20, 2024. We also have an existing $240.0 million senior secured term loan that was entered into in November 2018 that matures on November 21, 2025 ("2018 Term Loan"). The original amounts available under the New Revolving Credit Facility, New Term Loan, and 2018 Term Loan (collectively, the "Credit Facilities") in aggregate, totaled $480.0 million. We are required to make installment payments of 1.25% of the original outstanding principal balance of the New Term Loan amount on a quarterly basis. In addition, if we meet the annual excess cash flow threshold, we will be required to make excess flow payments on an annual basis. Further, the undrawn portion of the commitment of the New Revolving Credit Facility is subject to a commitment fee ranging from 0.175% to 0.275%, based upon the consolidated total net adjusted leverage ratio. As of December 31, 2019, we were in compliance with all covenants required under the Credit Facilities. See Note 9 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information.

In November 2018, we completed credit facilities to replace the then existing credit facilities. The November 2018 credit facilities consisted of the 2018 Term Loan and the 2018 Revolving Credit Facility (collectively, the "2018 Credit Facilities"). We are required to make installment payments of 0.25% of the outstanding principal balance of the 2018 Term Loan amount on a quarterly basis. In addition, if we meet the annual excess cash flow threshold, we will be required to make excess flow payments on an annual basis. Further, the undrawn portion of the commitment of the 2018 Revolving Credit Facility is subject to a commitment fee ranging from 0.200% to 0.300%, based upon the consolidated total net adjusted leverage ratio. See Note 9 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information.

In October 2015, we entered into interest rate cap hedges designated as cash flow hedges with a portion of these interest rate cap hedges maturing on a quarterly basis, and a final quarterly maturity date of June 2020, in aggregate, totaling $135.0 million of our debt. We paid a total of $1.0 million in connection with entering into the interest rate cap hedges.

On October 8, 2019, we acquired Nobles Parent Inc., the parent company of Nobles Worldwide, Inc. ("Nobles") for a purchase price of $77.0 million, net of cash acquired, all payable in cash. We paid an aggregate of $77.3 million in cash by drawing down on the 2018 Revolving Credit Facility. See Note 3 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information.

In April 2018, we acquired Certified Thermoplastics Co., LLC ("CTP") for a purchase price of $30.7 million, net of cash acquired, all payable in cash. We paid an aggregate of $30.8 million in cash by drawing down on the 2018 Revolving Credit Facility. See Note 3 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for further information.

In September 2017, we acquired Lightning Diversion Systems, LLC ("LDS") for a purchase price of $60.0 million, net of cash acquired, all payable in cash. Upon the closing of the transaction, we paid $61.4 million in cash by drawing down on the then existing revolving credit facility. The remaining $0.6 million was paid in October 2017 in cash, also by drawing down on the then existing revolving credit facility.

We expect to spend a total of $16.0 million to $18.0 million for capital expenditures in 2020 financed by cash generated from operations, principally to support new contract awards at Structural Systems and Electronic Systems. As part of our strategic plan to become a supplier of higher-level assemblies and win new contract awards, additional up-front investment in tooling will be required for newer programs which have higher engineering content and higher levels of complexity in assemblies.

We believe the ongoing aerospace and defense subcontractor consolidation makes acquisitions an increasingly important component of our future growth. We will continue to make prudent acquisitions and capital expenditures for manufacturing equipment and facilities to support long-term contracts for commercial and military aircraft and defense programs.

We continue to depend on operating cash flow and the availability of our Credit Facilities to provide short-term liquidity. Cash generated from operations and bank borrowing capacity is expected to provide sufficient liquidity to meet our obligations during the next twelve months.

Cash Flow Summary

2019 Compared to 2018

Net cash provided by operating activities during 2019 increased to $51.0 million compared to $46.2 million during 2018 due to higher net income partially offset by no restructuring charges in the current year.

Net cash used in investing activities in 2019 was $94.9 million compared to $47.9 million in 2018 due to higher payments for acquisition.

Net cash provided by financing activities during 2019 was $73.2 million compared to $9.8 million during 2018 due to higher net borrowings on the credit facilities.

2018 Compared to 2017

See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2018 Annual Report on Form 10-K filed with the SEC.

Contractual Obligations

A summary of our contractual obligations at December 31, 2019 was as follows (dollars in thousands):

		Payments Due by Period			
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Long-term debt, including current portion	$ 310,000	$ 7,000	$ 14,000	$ 119,000	$ 170,000
Future interest on long-term debt	97,088	18,050	34,570	34,024	10,444
Purchase orders [(1)]	187,428	144,999	42,429	—	—
Operating leases	25,531	4,178	7,903	6,428	7,022
Pension liability	20,865	1,841	3,905	4,105	11,014
Total [(2)]	$ 640,912	$ 176,068	$ 102,807	$ 163,557	$ 198,480

(1) Purchase orders include non-cancelable commitments as of December 31, 2019 in which a written purchase order has been issued but the goods have not been received.

(2) As of December 31, 2019, we have recorded $5.7 million in long-term liabilities related to uncertain tax positions. We are not able to reasonably estimate the timing of the long-term payments, or the amount by which our liability may increase or decrease over time, therefore, the liability or uncertain tax positions has not been included in the contractual obligations table.

We have estimated that the fair value of our indemnification obligations as insignificant based upon our history with such obligations and insurance coverage and have included no such obligation in the table above.

Our ultimate liability with respect to groundwater contamination at certain Structural Systems facilities will depend upon a number of factors, including changes in existing laws and regulations, the design and cost of construction, operation and maintenance activities, and the allocation of liability among potentially responsible parties. The above table does not include obligations related to these matters. See Note 15 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for discussion of our environmental liabilities.

Off-Balance Sheet Arrangements

Our off-balance sheet arrangements consist of operating and finance leases not recorded as a result of the practical expedients utilized as a part of the adoption of ASC 842 as of January 1, 2019 and indemnities.

CRITICAL ACCOUNTING POLICIES

Critical accounting policies are those accounting policies that can have a significant impact on the presentation of our financial condition and results of operations and that require the use of subjective estimates based upon past experience and management's judgment. Because of the uncertainty inherent in such estimates, actual results may differ from these estimates. Below are those policies applied in preparing our financial statements that management believes are the most dependent on the application of estimates and assumptions. See Note 1 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for additional accounting policies.

Revenue Recognition

Our customers typically engage us to manufacture products based on designs and specifications provided by the end-use customer. This requires the building of tooling and manufacturing first article inspection products (prototypes) before volume manufacturing. Contracts with our customers generally include a termination for convenience clause.

We have a significant number of contracts that are started and completed within the same year, as well as contracts derived from long-term agreements and programs that can span several years. We recognize revenue under ASC 606, which utilizes a five-step model.

The definition of a contract for us is typically defined as a customer purchase order as this is when we achieve an enforceable right to payment. The majority of our contracts are firm fixed-price contracts. The deliverables within a customer purchase order are analyzed to determine the number of performance obligations. In addition, at times, in order to achieve economies of scale and based on our customer's forecasted demand, we may build in advance of receiving a purchase order from our customer. When that occurs, we would not recognize revenue until we have received the customer purchase order.

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account under ASC 606. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, control is transferred and the performance obligation is satisfied. The majority of our contracts have a single performance obligation as the promise to transfer the individual goods or services are highly interrelated or met the series guidance. For contracts with multiple performance obligations, we allocate the contract transaction price to each performance obligation using our best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate the standalone selling price is the expected cost plus a margin approach, under which we forecast our expected costs of satisfying a performance obligation and then add an appropriate margin for that distinct good or service.

We manufacture most products to customer specifications and the product cannot be easily modified for another customer. As such, these products are deemed to have no alternative use once the manufacturing process begins. In the event the customer invokes a termination for convenience clause, we would be entitled to costs incurred to date plus a reasonable profit. Contract costs typically include labor, materials, overhead, and when applicable, subcontractor costs. For most of our products, we are building assets with no alternative use and have enforceable right to payment, and thus, we recognize revenue using the over time method.

The majority of our performance obligations are satisfied over time as work progresses. Typically, revenue is recognized over time using an input measure (i.e., costs incurred to date relative to total estimated costs at completion, also known as cost-to-cost plus reasonable profit) to measure progress. Our typical revenue contract is a firm fixed price contract, and the cost of raw materials could make up a significant amount of the total costs incurred. As such, we believe using the total costs incurred input method would be the most appropriate method. While the cost of raw materials could make up a significant amount of the total costs incurred, there is a direct relationship between our inputs and the transfer of control of goods or services to the customer.

Contract estimates are based on various assumptions to project the outcome of future events that can span multiple months or years. These assumptions include labor productivity and availability; the complexity of the work to be performed; the cost and availability of materials; and the performance of subcontractors.

As a significant change in one or more of these estimates could affect the profitability of our contracts, we review and update our contract-related estimates on a regular basis. We recognize adjustments in estimated profit on contracts under the cumulative catch-up method. Under this method, the impact of the adjustment on profit recorded to date is recognized in the period the adjustment is identified. Revenue and profit in future periods of contract performance is recognized using the adjusted estimate. If at any time the estimate of contract profitability indicates an anticipated loss on the contract, we recognize the total loss in the quarter it is identified.

The impact of adjustments in contract estimates on our operating earnings can be reflected in either operating costs and expenses or revenue. See Note 1 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for the net impact of these adjustments to our consolidated financial statements for 2019.

Provision for Estimated Losses on Contracts

We record provisions for the total anticipated losses on contracts, considering total estimated costs to complete the contract compared to total anticipated revenues, in the period in which such losses are identified. The provisions for estimated losses on contracts require us to make certain estimates and assumptions, including those with respect to the future revenue under a contract and the future cost to complete the contract. Our estimate of the future cost to complete a contract may include assumptions as to changes in manufacturing efficiency, operating and material costs, and our ability to resolve claims and assertions with our customers. If any of these or other assumptions and estimates do not materialize in the future, we may be required to adjust the provisions for estimated losses on contracts. The provision for estimated losses on contracts is included as part of contract liabilities on the consolidated balance sheets.

Production Cost of Contracts

Production cost of contracts includes non-recurring production costs, such as design and engineering costs, and tooling and other special-purpose machinery necessary to build parts as specified in a contract. Production costs of contracts are recorded to cost of sales using the over time revenue recognition model. We review the value of the production cost of contracts on a quarterly basis to ensure when added to the estimated cost to complete, the value is not greater than the estimated realizable value of the related contracts.

Goodwill

Our business acquisitions have resulted in the recognition of goodwill. Goodwill is not amortized but is subject to annual evaluation for impairment (which we perform based on the first day of the fourth fiscal quarter). If certain factors occur, including significant under performance of our business relative to expected operating results, significant adverse economic and industry trends, significant decline in our market capitalization for an extended period of time relative to net book value, a decision to divest individual businesses within a reporting unit, or a decision to group individual businesses differently, we may perform an impairment test prior to the fourth quarter. In addition, we early adopted ASU 2017-04 on January 1, 2019 which simplified our goodwill impairment testing by eliminating Step Two of the goodwill impairment test. See Note 1 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K.

We acquired Certified Thermoplastics Co., LLC (“CTP”) in April 2018 and recorded goodwill of $18.6 million in our Structural Systems segment, which is also our reporting unit. Since a goodwill impairment analysis is required to be performed within one year of the acquisition date or sooner upon a triggering event, we performed a Step One goodwill impairment analysis as of April 2019 for our Structural Systems segment. The fair value of our Structural Systems segment exceeded its carrying value by 85% and thus, was not deemed impaired.

In the fourth quarter of 2019, the carrying amount of goodwill at the date of the most recent annual impairment evaluation for Electronic Systems and Structural Systems was $117.4 million and $18.6 million, respectively. As of the date of our 2019 annual evaluation for goodwill impairment, for the Electronic Systems segment, which is also our reporting unit, we elected to perform a Step One goodwill impairment analysis and will continue to do so from time to time. The fair value of our Electronic Systems segment exceeded its carrying value by 44% and thus, was not deemed impaired.

As of the date of our 2019 annual evaluation for goodwill impairment, for the Structural Systems segment, we used a qualitative assessment including 1) margin of passing most recent step 1 analysis, 2) earnings before interest, taxes, depreciation, and amortization, 3) long-term growth rate, 4) analyzing material adverse factors/changes between valuation dates, 5) general macroeconomic factors, and 6) industry and market conditions, noting it was not more likely than not that the fair value of a reporting unit is less than its carrying amount and thus, goodwill was not deemed impaired.

Other Intangible Assets

We amortize acquired other intangible assets with finite lives over the estimated economic lives of the assets, ranging from 10 years to 18 years generally using the straight-line method. The value of other intangibles acquired through business combinations has been estimated using present value techniques which involve estimates of future cash flows. We evaluate other intangible assets for recoverability considering undiscounted cash flows, when significant changes in conditions occur, and recognize impairment losses, if any, based upon the estimated fair value of the assets.

Accounting for Stock-Based Compensation

We measure and recognize compensation expense for share-based payment transactions to our employees and non-employees at their estimated fair value. The expense is measured at the grant date, based on the calculated fair value of the share-based award, and is recognized over the requisite service period (generally the vesting period of the equity award). The fair value of stock options are determined using the Black-Scholes-Merton (“Black-Scholes”) valuation model, which requires assumptions and judgments regarding stock price volatility, risk-free interest rates, and expected options terms. Management’s estimates could differ from actual results. The fair value of unvested stock awards is determined based on the closing price of the underlying common stock on the date of grant except for market condition awards for which the fair value was based on a Monte Carlo simulation model.

Inventories

Inventories are stated at the lower of cost or net realizable value with cost being determined using a moving average cost basis for raw materials and actual cost for work-in-process and finished goods. The majority of our inventory is charged to cost of sales as raw materials are placed into production and the related revenue is recognized. Inventoried costs include raw materials, outside processing, direct labor and allocated overhead, adjusted for any abnormal amounts of idle performance center expense, freight, handling costs, and wasted materials (spoilage) incurred. We assess the inventory carrying value and reduce it, if necessary, to its net realizable value based on customer orders on hand, and internal demand forecasts using management’s best estimates given information currently available. The majority of our revenues are recognized over time, however, for revenue contracts where revenue is recognized using the point in time method, inventory is not reduced until it is shipped or transfer of control to the customer has occurred. Our ending inventory consists of raw materials, work-in-process, and finished goods.

Income Taxes

Income taxes are accounted for using an asset and liability approach that requires the recognition of deferred tax assets and liabilities. Deferred tax assets and liabilities are recognized, using enacted tax rates, for the expected future tax consequences of temporary differences between the book and tax bases of recorded assets and liabilities, operating losses, and tax credit carryforwards. Deferred tax assets are evaluated quarterly and are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Tax positions taken or expected to be taken in a tax return are recognized when it is more-likely-than-not, based on technical merits, to be sustained upon examination by taxing authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement, including resolution of related appeals and/or litigation process, if any.

Environmental Liabilities

Environmental liabilities are recorded when environmental assessments and/or remedial efforts are probable and costs can be reasonably estimated. Generally, the timing of these accruals coincides with the completion of a feasibility study or our commitment to a formal plan of action. Further, we review and update our environmental accruals as circumstances change and/or additional information is obtained that reasonably could be expected to have a meaningful effect on the outcome of a matter or the estimated cost thereof.

Recent Accounting Pronouncements

See Note 1 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K for a description of recent accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our main market risk exposure relates to changes in U.S. and U.K. interest rates on our outstanding long-term debt. At December 31, 2019, we had borrowings of $310.0 million under our Credit Facilities.

The New Term Loan bears interest, at our option, at a rate equal to either (i) the Eurodollar Rate (defined as the London Interbank Offered Rate [“LIBOR”]) plus an applicable margin ranging from 1.50% to 2.50% per year or (ii) the Base Rate (defined as the highest of [a] Federal Funds Rate plus 0.50%, [b] Bank of America’s prime rate, and [c] the Eurodollar Rate plus 1.00%) plus an applicable margin ranging from 0.50% to 1.50% per year, in each case based upon the consolidated total net adjusted leverage ratio.

The New Revolving Credit Facility bears interest, at our option, at a rate equal to either (i) the Eurodollar Rate (defined as LIBOR) plus an applicable margin ranging from 1.50% to 2.50% per year or (ii) the Base Rate (defined as the highest of [a] Federal Funds Rate plus 0.50%, [b] Bank of America’s prime rate, and [c] the Eurodollar Rate plus 1.00%) plus an applicable margin ranging from 0.50% to 1.50% per year, in each case based upon the consolidated total net adjusted leverage ratio.

A hypothetical 10% increase or decrease in the interest rate would have an immaterial impact on our financial condition and results of operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements and supplementary data together with the report thereon of PricewaterhouseCoopers LLP included in Part IV, Item 15(a) 1 and 2 of this Annual Report on Form 10-K are included herein by reference.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (“Exchange Act”)) are designed to provide reasonable assurance that information required to be disclosed in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and that such information is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures.

Under the supervision and with the participation of our management, including the Chief Executive Officer and the Chief Financial Officer, we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2019.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The 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 ("GAAP"). The 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 GAAP, 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 our 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 of the Company has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") *Internal Control-Integrated Framework* (2013). Based on our assessment and those criteria, management concluded that the Company maintained effective internal control over financial reporting as of December 31, 2019.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2019 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included in Item 15 of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting during the quarter ended December 31, 2019.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Directors of the Registrant

The information under the caption "Election of Directors" in the 2020 Proxy Statement is incorporated herein by reference.

Executive Officers of the Registrant

The information under the caption "Executive Officers of the Registrant" in the 2020 Proxy Statement is incorporated herein by reference.

Audit Committee and Audit Committee Financial Expert

The information under the caption "Committees of the Board of Directors" relating to the Audit Committee of the Board of Directors in the 2020 Proxy Statement is incorporated herein by reference.

Compliance with Section 16(a) of the Exchange Act

The information under the caption "Delinquent Section 16(a) Reports" in the 2020 Proxy Statement is incorporated herein by reference.

Code of Business Conduct and Ethics

The information under the caption "Code of Business Conduct and Ethics" in the 2020 Proxy Statement is incorporated herein by reference.

Changes to Procedures to Recommend Nominees

There have been no material changes to the procedures by which security holders may recommend nominees to the Company's Board of Directors since the date of the Company's last proxy statement.

ITEM 11. EXECUTIVE COMPENSATION

The information under the captions "Compensation of Executive Officers," "Compensation of Directors," "Compensation Committee Interlocks and Insider Participation" and "Compensation Committee Report" in the 2020 Proxy Statement is incorporated herein by reference.

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

The information under the caption "Security Ownership of Certain Beneficial Owners and Management" in the 2020 Proxy Statement is incorporated herein by reference.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information about our compensation plans under which equity securities are authorized for issuance:

	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))(c)(3)
Equity Compensation Plans approved by security holders(1)	771,815	$ 34.68	222,132
Employee stock purchase plan approved by security holders(2)	—	—	723,479
Equity compensation plans not approved by security holders	—	—	—
Total	771,815		945,611

(1) Consists of the 2007 Stock Incentive Plan ("2007 Plan") and the 2013 Stock Incentive Plan ("2013 Plan"), although the 2007 Plan has expired and no new grants can be made out of the 2007 Plan. The number of securities to be issued consists of 446,818 for stock options, 127,423 for restricted stock units and 197,574 for performance stock units at target. The weighted average exercise price applies only to the stock options.

(2) The 2018 Employee Stock Purchase Plan enables employees to purchase our common stock at a 15% discount to the lower of the market value at the beginning or end of each six month offering period. As such, the number of share that may be issued during a given six month period and the purchase price of such shares cannot be determined in advance. See Note 11 to our consolidated financial statements included in Part IV, Item 15(a) of this Annual Report on Form 10-K.

(3) Awards are not restricted to any specified form or structure and may include, without limitation, sales or bonuses of stock, restricted stock, stock options, reload stock options, stock purchase warrants, other rights to acquire stock, securities convertible into or redeemable for stock, stock appreciation rights, limited stock appreciation rights, phantom stock, dividend equivalents, performance units or performance shares, and an award may consist of one such security or benefit, or two or more of them in tandem or in alternative.

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

The information under the caption "Certain Relationships and Related Transactions" in the 2020 Proxy Statement is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information under the caption "Principal Accountant Fees and Services" contained in the 2020 Proxy Statement is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) 1. Financial Statements

The following consolidated financial statements of Ducommun Incorporated and subsidiaries, are incorporated by reference in Item 8 of this report.

2. Financial Statement Schedule

The following schedule for the years ended December 31, 2019, 2018 and 2017 is filed herewith:

All other schedules have been omitted because they are not applicable, not required, or the information has been otherwise supplied in the financial statements or notes thereto.

3. Exhibits

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Ducommun Incorporated

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Ducommun Incorporated and its subsidiaries (the “Company”) as of December 31, 2019 and 2018, and the related consolidated statements of income, comprehensive income, changes in shareholders’ equity and cash flows for each of the three years in the period ended December 31, 2019, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)2 (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenues from contracts with customers in 2018.

Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, 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 on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. 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.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (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

Irvine, California
February 20, 2020

We have served as the Company's auditor since 1989.

Ducommun Incorporated and Subsidiaries
Consolidated Balance Sheets
(Dollars in thousands, except share and per share data)

	December 31, 2019	December 31, 2018
Assets		
Current Assets		
Cash and cash equivalents	$ 39,584	$ 10,263
Accounts receivable (net of allowance for doubtful accounts of $1,321 and $1,135 at December 31, 2019 and 2018, respectively)	67,133	67,819
Contract assets	106,670	86,665
Inventories	112,482	101,125
Production cost of contracts	9,402	11,679
Other current assets	5,497	6,531
Total Current Assets	340,768	284,082
Property and Equipment, Net	115,216	107,045
Operating lease right-of-use assets	19,105	—
Goodwill	170,917	136,057
Intangibles, Net	138,362	112,092
Non-Current Deferred Income Taxes	55	308
Other Assets	6,006	5,155
Total Assets	$ 790,429	$ 644,739
Liabilities and Shareholders' Equity		
Current Liabilities		
Accounts payable	$ 82,597	$ 69,274
Contract liabilities	14,517	17,145
Accrued liabilities	37,620	37,786
Operating lease liabilities	2,956	—
Current portion of long-term debt	7,000	2,330
Total Current Liabilities	144,690	126,535
Long-Term Debt, Less Current Portion	300,887	228,868
Non-Current Operating Lease Liabilities	17,565	—
Non-Current Deferred Income Taxes	16,766	18,070
Other Long-Term Liabilities	17,721	14,441
Total Liabilities	497,629	387,914
Commitments and Contingencies (Notes 13, 15)		
Shareholders' Equity		
Common stock - $0.01 par value; 35,000,000 shares authorized; 11,572,668 and 11,417,863 shares issued and outstanding at December 31, 2019 and 2018, respectively	116	114
Additional paid-in capital	88,399	83,712
Retained earnings	212,553	180,356
Accumulated other comprehensive loss	(8,268)	(7,357)
Total Shareholders' Equity	292,800	256,825
Total Liabilities and Shareholders' Equity	$ 790,429	$ 644,739

See accompanying notes to consolidated financial statements.

Ducommun Incorporated and Subsidiaries
Consolidated Statements of Income
(Dollars in thousands, except per share amounts)

	Years Ended December 31,		
	2019	2018	2017
Net Revenues	$ 721,088	$ 629,307	$ 558,183
Cost of Sales	568,891	506,711	455,050
Gross Profit	152,197	122,596	103,133
Selling, General and Administrative Expenses	95,964	84,007	79,139
Restructuring Charges	—	14,671	8,360
Operating Income	56,233	23,918	15,634
Interest Expense	(18,290)	(13,024)	(8,870)
Loss on Extinguishment of Debt	(180)	(926)	—
Other Income, Net	—	303	845
Income Before Taxes	37,763	10,271	7,609
Income Tax Expense (Benefit)	5,302	1,236	(12,468)
Net Income	$ 32,461	$ 9,035	$ 20,077
Earnings Per Share			
Basic earnings per share	$ 2.82	$ 0.79	$ 1.78
Diluted earnings per share	$ 2.75	$ 0.77	$ 1.74
Weighted-Average Number of Shares Outstanding			
Basic	11,518	11,390	11,290
Diluted	11,792	11,659	11,558

See accompanying notes to consolidated financial statements.

Ducommun Incorporated and Subsidiaries
Consolidated Statements of Comprehensive Income
(Dollars in thousands)

	Years Ended December 31,		
	2019	2018	2017
Net Income	$ 32,461	$ 9,035	$ 20,077
Other Comprehensive (Loss) Income, Net of Tax:			
Pension Adjustments:			
Amortization of actuarial losses and prior service costs, net of tax of $209, $173, and $302 for 2019, 2018, and 2017, respectively	676	570	508
Actuarial losses arising during the period, net of tax benefit of $502, $302, and $194 for 2019, 2018, and 2017, respectively	(1,682)	(899)	(304)
Change in net unrealized gains (losses) on cash flow hedges, net of tax expense (benefit) of $29, $121, and $(145) for 2019, 2018, and 2017, respectively	95	407	(242)
Other Comprehensive (Loss) Income, Net of Tax	(911)	78	(38)
Comprehensive Income, Net of Tax	$ 31,550	$ 9,113	$ 20,039

See accompanying notes to consolidated financial statements.

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Ducommun Incorporated and Subsidiaries
Consolidated Statements of Changes in Shareholders' Equity
(Dollars in thousands, except share data)

	Shares Outstanding	Common Stock	Treasury Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Shareholders' Equity
Balance at December 31, 2016	**11,193,813**	**$ 112**	**$ —**	**$ 76,783**	**$ 141,287**	**$ (6,079)**	**$ 212,103**
Net income	—	—	—	—	20,077	—	20,077
Other comprehensive loss, net of tax	—	—	—	—	—	(38)	(38)
Stock options exercised	212,775	2	—	4,334	—	—	4,336
Stock repurchased related to the exercise of stock options	(219,164)	(2)	—	(6,902)	—	—	(6,904)
Stock awards vested	145,417	1	—	(1)	—	—	—
Stock-based compensation	—	—	—	6,009	—	—	6,009
Balance at December 31, 2017	**11,332,841**	**$ 113**	**$ —**	**$ 80,223**	**$ 161,364**	**$ (6,117)**	**$ 235,583**
Net income	—	—	—	—	9,035	—	9,035
Other comprehensive income, net of tax	—	—	—	—	—	78	78
Adoption of ASC 606 adjustment	—	—	—	—	8,665	—	8,665
Adoption of ASU 2018-02 adjustment	—	—	—	—	1,292	(1,318)	(26)
Stock options exercised	84,800	1	—	1,821	—	—	1,822
Stock repurchased related to the exercise of stock options	(98,438)	(1)	—	(3,371)	—	—	(3,372)
Stock awards vested	98,660	1	—	(1)	—	—	—
Stock-based compensation	—	—	—	5,040	—	—	5,040
Balance at December 31, 2018	**11,417,863**	**$ 114**	**$ —**	**$ 83,712**	**$ 180,356**	**$ (7,357)**	**$ 256,825**
Net income	—	—	—	—	32,461	—	32,461
Other comprehensive loss, net of tax	—	—	—	—	—	(911)	(911)
Adoption of ASC 842 adjustment	—	—	—	—	(264)	—	(264)
Employee stock purchase plan	26,521	—	—	1,118			1,118
Stock options exercised	80,693	1	—	2,014	—	—	2,015
Stock repurchased related to the exercise of stock options	(123,192)	(1)	—	(5,604)	—	—	(5,605)
Stock awards vested	170,783	2	—	(2)	—	—	—
Stock-based compensation	—	—	—	7,161	—	—	7,161
Balance at December 31, 2019	**11,572,668**	**$ 116**	**$ —**	**$ 88,399**	**$ 212,553**	**$ (8,268)**	**$ 292,800**

See accompanying notes to consolidated financial statements.

Ducommun Incorporated and Subsidiaries
Consolidated Statements of Cash Flows
(Dollars in thousands)

	Years Ended December 31,		
	2019	2018	2017
Cash Flows from Operating Activities			
Net Income	$ 32,461	$ 9,035	$ 20,077
Adjustments to Reconcile Net Income to			
Net Cash Provided by Operating Activities:			
Depreciation and amortization	28,305	25,296	22,845
Non-cash operating lease cost	2,669	—	—
Property and equipment impairment due to restructuring	—	6,207	3,607
Stock-based compensation expense	7,161	5,040	4,675
Deferred income taxes	(1,830)	2,042	(15,411)
Provision for doubtful accounts	186	267	373
Noncash loss on extinguishment of debt	180	926	—
Other	942	11,659	(1,182)
Changes in Assets and Liabilities:			
Accounts receivable	2,380	7,495	2,720
Contract assets	(20,005)	(86,665)	—
Inventories	(8,491)	23,243	(533)
Production cost of contracts	(1,079)	(1,569)	(267)
Other assets	1,358	1,881	40
Accounts payable	11,620	18,496	(4,015)
Contract liabilities	(2,628)	17,145	—
Accrued and other liabilities	(2,198)	5,739	2,505
Net Cash Provided by Operating Activities	**51,031**	**46,237**	**35,434**
Cash Flows from Investing Activities			
Purchases of property and equipment	(18,290)	(17,617)	(27,610)
Proceeds from sale of assets	3	396	913
Insurance recoveries related to property and equipment	—	—	288
Payments for acquisition of Lightning Diversion Systems, LLC, net of cash acquired	—	—	(59,798)
Payments for acquisition of Certified Thermoplastics Co., LLC, net of cash acquired	—	(30,712)	—
Payments for acquisition of Nobles Worldwide, Inc. net of cash acquired	(76,647)	—	—
Net Cash Used in Investing Activities	**(94,934)**	**(47,933)**	**(86,207)**
Cash Flows from Financing Activities			
Borrowings from senior secured revolving credit facility	298,400	296,400	395,900
Repayment of senior secured revolving credit facility	(298,400)	(354,500)	(337,800)
Borrowings from term loans	140,000	240,000	—
Repayments of term loans	(63,000)	(167,000)	(10,000)
Repayments of other debt	(169)	—	(3)
Debt issuance costs	(1,135)	(3,541)	—
Net cash paid from issuance of common stock under stock plans	(2,472)	(1,550)	(2,606)
Net Cash Provided by Financing Activities	**73,224**	**9,809**	**45,491**
Net Increase (Decrease) in Cash and Cash Equivalents	29,321	8,113	(5,282)
Cash and Cash Equivalents at Beginning of Year	10,263	2,150	7,432
Cash and Cash Equivalents at End of Year	**$ 39,584**	**$ 10,263**	**$ 2,150**

See accompanying notes to consolidated financial statements.

DUCOMMUN INCORPORATED AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Summary of Significant Accounting Policies

Description of Business

We are a leading global provider of engineering and manufacturing services for high-performance products and high-cost-of failure applications used primarily in the aerospace and defense ("A&D"), industrial, medical, and other industries (collectively, "Industrial"). Our operations are organized into two primary businesses: Electronic Systems segment and Structural Systems segment, each of which is a reportable operating segment. Electronic Systems designs, engineers and manufactures high-reliability electronic and electromechanical products used in worldwide technology-driven markets including A&D and Industrial end-use markets. Electronic Systems' product offerings primarily range from prototype development to complex assemblies. Structural Systems designs, engineers and manufactures large, complex contoured aerostructure components and assemblies and supplies composite and metal bonded structures and assemblies. Structural Systems' products are primarily used on commercial aircraft, military fixed-wing aircraft and military and commercial rotary-wing aircraft. All reportable operating segments follow the same accounting principles.

Basis of Presentation

The consolidated financial statements include the accounts of Ducommun Incorporated and its subsidiaries ("Ducommun," the "Company," "we," "us" or "our"), after eliminating intercompany balances and transactions.

In the opinion of management, all adjustments, consisting of recurring accruals, have been made that are necessary to fairly present our consolidated financial position, statements of income, comprehensive income, and cash flows in accordance with accounting principles generally accepted in the United States of America ("GAAP").

Our fiscal quarters typically end on the Saturday closest to the end of March, June and September for the first three fiscal quarters of each year, and ends on December 31 for our fourth fiscal quarter. As a result of using fiscal quarters for the first three quarters combined with leap years, our first and fourth fiscal quarters can range between 12 1/2 weeks to 13 1/2 weeks while the second and third fiscal quarters remain at a constant 13 weeks per fiscal quarter.

Changes in Accounting Policies

We adopted Accounting Standards Codification ("ASC") 842, "Leases" ("ASC 842"), on January 1, 2019. As a result, we changed our accounting policy for lease accounting as discussed in Note 2.

We applied ASC 842 using the additional transition method and therefore, recognized the cumulative effect of initially applying ASC 842 as an adjustment to the opening consolidated balance sheet at January 1, 2019. Therefore, the comparative information has not been adjusted and continues to be reported under the previous lease accounting standard, ASC 840, "Leases" ("ASC 840"). The details of the significant changes and quantitative impact of the changes are described in Note 2.

We adopted ASC 606, "Revenue from Contracts with Customers" ("ASC 606"), on January 1, 2018. As a result, we changed our accounting policy for revenue recognition and the majority of our revenues began being recognized over time. The majority of our inventory began being charged to cost of sales as raw materials are placed into production and the related revenue is recognized. Revenues recognized before billing are classified as contract assets. Payments received from customers prior to our billing are classified as contract liabilities. The determination of our provision for estimated losses on contracts was also changed as the definition of a contract for us became the customer purchase order instead of the long-term arrangements and are classified as contract liabilities.

We applied ASC 606 using the modified retrospective method (also known as the cumulative effect method) and as such, recognized the cumulative effect of initially applying ASC 606 as an adjustment to the opening consolidated balance sheet at January 1, 2018. Therefore, the comparative information has not been adjusted and continues to be reported under the previous revenue recognition accounting standard, ASC 605, "Revenue Recognition" ("ASC 605").

Use of Estimates

Certain amounts and disclosures included in the consolidated financial statements required management to make estimates and judgments that affect the amount of assets, liabilities (including forward loss reserves), revenues and expenses, and related disclosures of contingent assets and liabilities. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates.

Reclassifications

Certain prior period amounts have been reclassified to conform to current year's presentation.

Supplemental Cash Flow Information

	(Dollars in thousands) Years Ended December 31,		
	2019	2018	2017
Interest paid	$ 16,474	$ 11,573	$ 7,307
Taxes paid	$ 5,699	$ 316	$ 3,125
Non-cash activities:			
Purchases of property and equipment not paid	$ 1,380	$ 824	$ 2,104

Fair Value

Assets and liabilities that are measured, recorded or disclosed at fair value on a recurring basis are categorized using the fair value hierarchy. The fair value hierarchy has three levels based on the reliability of the inputs used to determine the fair value. Level 1, the highest level, refers to the values determined based on quoted prices in active markets for identical assets. Level 2 refers to fair values estimated using significant observable inputs. Level 3, the lowest level, includes fair values estimated using significant unobservable inputs.

We have money market funds and they are included as cash and cash equivalents. We also have interest rate cap hedge agreements and the fair value of the interest rate cap hedge agreements were determined using pricing models that use observable market inputs as of the balance sheet date, a Level 2 measurement. The interest rate cap hedge premium was zero as of December 31, 2019.

There were no transfers between Level 1, Level 2, or Level 3 financial instruments in either 2019 or 2018.

Cash Equivalents

Cash equivalents consist of highly liquid instruments purchased with original maturities of three months or less. These assets are valued at cost, which approximates fair value, which we classify as Level 1. See Fair Value above.

Derivative Instruments

We recognize derivative instruments on our consolidated balance sheets at their fair value. On the date that we enter into a derivative contract, we designate the derivative instrument as a fair value hedge, a cash flow hedge, a hedge of a net investment in a foreign operation, or a derivative instrument that will not be accounted for using hedge accounting methods. As of December 31, 2019 and December 31, 2018, all of our derivative instruments were designated as cash flow hedges.

We record changes in the fair value of a derivative instrument that is highly effective and that is designated and qualifies as a cash flow hedge in other comprehensive income (loss), net of tax until our earnings are affected by the variability of cash flows of the underlying hedge. We record any hedge ineffectiveness and amounts excluded from effectiveness testing in current period earnings within interest expense. We report changes in the fair values of derivative instruments that are not designated or do not qualify for hedge accounting in current period earnings. We classify cash flows from derivative instruments in the consolidated statements of cash flows in the same category as the item being hedged or on a basis consistent with the nature of the instrument. In 2019, the impact of cash flow hedges was insignificant.

When we determine that a derivative instrument is not highly effective as a hedge, we discontinue hedge accounting prospectively. In all situations in which we discontinue hedge accounting and the derivative instrument remains outstanding, we will carry the derivative instrument at its fair value on our consolidated balance sheets and recognize subsequent changes in its fair value in our current period earnings.

Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts for estimated losses from the inability of customers to make required payments. The allowance for doubtful accounts is evaluated periodically based on the aging of accounts receivable, the financial condition of customers and their payment history, historical write-off experience and other assumptions, such as current assessment of economic conditions.

Inventories

Inventories are stated at the lower of cost or net realizable value with cost being determined using a moving average cost basis for raw materials and actual cost for work-in-process and finished goods. The majority of our inventory is charged to cost of sales as raw materials are placed into production and the related revenue is recognized. Inventoried costs include raw materials, outside processing, direct labor and allocated overhead, adjusted for any abnormal amounts of idle performance center expense, freight, handling costs, and wasted materials (spoilage) incurred. We assess the inventory carrying value and reduce it, if necessary, to its net realizable value based on customer orders on hand, and internal demand forecasts using management's best estimates given information currently available. The majority of our revenues are recognized over time, however, for revenue contracts where revenue is recognized using the point in time method, inventory is not reduced until it is shipped or transfer of control to the customer has occurred. Our ending inventory consists of raw materials, work-in-process, and finished goods.

Production Cost of Contracts

Production cost of contracts includes non-recurring production costs, such as design and engineering costs, and tooling and other special-purpose machinery necessary to build parts as specified in a contract. Production costs of contracts are recorded to cost of sales using the over time revenue recognition model. We review the value of the production cost of contracts on a quarterly basis to ensure when added to the estimated cost to complete, the value is not greater than the estimated realizable value of the related contracts. As of December 31, 2019 and 2018, production costs of contracts were $9.4 million and $11.7 million, respectively.

Property and Equipment and Depreciation

Property and equipment, including assets recorded under operating and finance leases, are recorded at cost. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the related assets, or the lease term if shorter for leasehold improvements. Repairs and maintenance are charged to expense as incurred. We evaluate long-lived assets for recoverability considering undiscounted cash flows, when significant changes in conditions occur, and recognize impairment losses if any, based upon the fair value of the assets.

Goodwill

Goodwill is evaluated for impairment on an annual basis on the first day of the fourth fiscal quarter. If certain factors occur, including significant under performance of our business relative to expected operating results, significant adverse economic and industry trends, significant decline in our market capitalization for an extended period of time relative to net book value, a decision to divest individual businesses within a reporting unit, or a decision to group individual businesses differently, we may perform an impairment test prior to the fourth quarter. In addition, we early adopted ASU 2017-04 on January 1, 2019 which simplified our goodwill impairment testing by eliminating Step Two of the goodwill impairment test. See Note 1.

We acquired Certified Thermoplastics Co., LLC ("CTP") in April 2018 and recorded goodwill of $18.6 million in our Structural Systems segment, which is also our reporting unit. Since a goodwill impairment analysis is required to be performed within one year of the acquisition date or sooner upon a triggering event, we performed a Step One goodwill impairment analysis as of April 2019 for our Structural Systems segment. The fair value of our Structural Systems segment exceeded its carrying value by 85% and thus, was not deemed impaired.

In the fourth quarter of 2019, the carrying amount of goodwill at the date of the most recent annual impairment evaluation for Electronic Systems and Structural Systems was $117.4 million and $18.6 million, respectively. As of the date of our 2019 annual evaluation for goodwill impairment, for the Electronic Systems segment, which is also our reporting unit, we elected to perform a Step One goodwill impairment analysis and will continue to do so from time to time. The fair value of our Electronic Systems segment exceeded its carrying value by 44% and thus, was not deemed impaired.

As of the date of our 2019 annual evaluation for goodwill impairment, for the Structural Systems segment, we used a qualitative assessment including 1) margin of passing most recent step 1 analysis, 2) earnings before interest, taxes, depreciation, and amortization, 3) long-term growth rate, 4) analyzing material adverse factors/changes between valuation dates, 5) general macroeconomic factors, and 6) industry and market conditions, noting it was not more likely than not that the fair value of a reporting unit is less than its carrying amount and thus, goodwill was not deemed impaired.

Other Intangible Assets

We amortize acquired other intangible assets with finite lives over the estimated economic lives of the assets, ranging from 10 to 18 years generally using the straight-line method. The value of other intangibles acquired through business combinations has been estimated using present value techniques which involve estimates of future cash flows. We evaluate other intangible assets for recoverability considering undiscounted cash flows, when significant changes in conditions occur, and recognize impairment losses, if any, based upon the estimated fair value of the assets.

Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss, as reflected on the consolidated balance sheets under the equity section, was comprised of cumulative pension and retirement liability adjustments, net of tax, and change in net unrealized gains and losses on cash flow hedges, net of tax.

Revenue Recognition

Our customers typically engage us to manufacture products based on designs and specifications provided by the end-use customer. This requires the building of tooling and manufacturing first article inspection products (prototypes) before volume manufacturing. Contracts with our customers generally include a termination for convenience clause.

We have a significant number of contracts that are started and completed within the same year, as well as contracts derived from long-term agreements and programs that can span several years. We recognize revenue under ASC 606, which utilizes a five-step model.

The definition of a contract for us is typically defined as a customer purchase order as this is when we achieve an enforceable right to payment. The majority of our contracts are firm fixed-price contracts. The deliverables within a customer purchase order are analyzed to determine the number of performance obligations. In addition, at times, in order to achieve economies of scale and based on our customer's forecasted demand, we may build in advance of receiving a purchase order from our customer. When that occurs, we would not recognize revenue until we have received the customer purchase order.

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account under ASC 606. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, control is transferred and the performance obligation is satisfied. The majority of our contracts have a single performance obligation as the promise to transfer the individual goods or services are highly interrelated or met the series guidance. For contracts with multiple performance obligations, we allocate the contract transaction price to each performance obligation using our best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate the standalone selling price is the expected cost plus a margin approach, under which we forecast our expected costs of satisfying a performance obligation and then add an appropriate margin for that distinct good or service.

We manufacture most products to customer specifications and the product cannot be easily modified for another customer. As such, these products are deemed to have no alternative use once the manufacturing process begins. In the event the customer invokes a termination for convenience clause, we would be entitled to costs incurred to date plus a reasonable profit. Contract costs typically include labor, materials, overhead, and when applicable, subcontractor costs. For most of our products, we are building assets with no alternative use and have enforceable right to payment, and thus, we recognize revenue using the over time method.

The majority of our performance obligations are satisfied over time as work progresses. Typically, revenue is recognized over time using an input measure (i.e., costs incurred to date relative to total estimated costs at completion, also known as cost-to-cost plus reasonable profit) to measure progress. Our typical revenue contract is a firm fixed price contract, and the cost of raw materials could make up a significant amount of the total costs incurred. As such, we believe using the total costs incurred input method would be the most appropriate method. While the cost of raw materials could make up a significant amount of the total costs incurred, there is a direct relationship between our inputs and the transfer of control of goods or services to the customer.

Contract estimates are based on various assumptions to project the outcome of future events that can span multiple months or years. These assumptions include labor productivity and availability; the complexity of the work to be performed; the cost and availability of materials; and the performance of subcontractors.

As a significant change in one or more of these estimates could affect the profitability of our contracts, we review and update our contract-related estimates on a regular basis. We recognize adjustments in estimated profit on contracts under the cumulative catch-up method. Under this method, the impact of the adjustment on profit recorded to date is recognized in the period the adjustment is identified. Revenue and profit in future periods of contract performance is recognized using the adjusted estimate. If at any time the estimate of contract profitability indicates an anticipated loss on the contract, we recognize the total loss in the quarter it is identified.

The impact of adjustments in contract estimates on our operating earnings can be reflected in either operating costs and expenses or revenue.

Net cumulative catch-up adjustments on profit recorded were not material for the year ended December 31, 2019.

Payments under long-term contracts may be received before or after revenue is recognized. When revenue is recognized before we bill our customer, a contract asset is created for the work performed but not yet billed. Similarly, when we receive payment before we ship our products to our customer, a contract liability is created for the advance or progress payment.

Contract Assets and Contract Liabilities

Contract assets consist of our right to payment for work performed but not yet billed. Contract assets are transferred to accounts receivable when we bill our customers. We bill our customers when we ship the products and meet the shipping terms within the revenue contract. Contract liabilities consist of advance or progress payments received from our customers prior to the time transfer of control occurs plus the estimated losses on contracts.

Contract assets and contract liabilities from revenue contracts with customers are as follows:

	(Dollars in thousands) December 31, 2019	December 31, 2018
Contract assets	$ 106,670	$ 86,665
Contract liabilities	$ 14,517	$ 17,145

Remaining performance obligations is defined as customer placed purchase orders (“POs”) with firm fixed price and firm delivery dates. Our remaining performance obligations as of December 31, 2019 totaled $745.3 million. We anticipate recognizing an estimated 65% of our remaining performance obligations as revenue during the next 12 months with the remaining performance obligations being recognized in 2021 and beyond.

Revenue by Category

In addition to the revenue categories disclosed above, the following table reflects our revenue disaggregated by major end-use market:

	(Dollars in thousands) Years Ended December 31,			% of Net Revenues	
	Change	2019	2018	2019	2018
Consolidated Ducommun					
Military and space	$ 46,208	$ 323,800	$ 277,592	44.9%	44.1%
Commercial aerospace	44,981	348,503	303,522	48.3%	48.2%
Industrial	592	48,785	48,193	6.8%	7.7%
Total	$ 91,781	$ 721,088	$ 629,307	100.0%	100.0%
Electronic Systems					
Military and space	$ 28,526	$ 244,245	$ 215,719	67.8%	63.8%
Commercial aerospace	(6,613)	67,343	73,956	18.7%	21.9%
Industrial	592	48,785	48,193	13.5%	14.3%
Total	$ 22,505	$ 360,373	$ 337,868	100.0%	100.0%
Structural Systems					
Military and space	$ 17,682	$ 79,555	$ 61,873	22.1%	21.2%
Commercial aerospace	51,594	281,160	229,566	77.9%	78.8%
Total	$ 69,276	$ 360,715	$ 291,439	100.0%	100.0%

Provision for Estimated Losses on Contracts

We record provisions for the total anticipated losses on contracts, considering total estimated costs to complete the contract compared to total anticipated revenues, in the period in which such losses are identified. The provisions for estimated losses on contracts require us to make certain estimates and assumptions, including those with respect to the future revenue under a contract and the future cost to complete the contract. Our estimate of the future cost to complete a contract may include assumptions as to changes in manufacturing efficiency, operating and material costs, and our ability to resolve claims and assertions with our customers. If any of these or other assumptions and estimates do not materialize in the future, we may be required to adjust the provisions for estimated losses on contracts. The provision for estimated losses on contracts is included as part of contract liabilities on the consolidated balance sheets. As of December 31, 2019 and 2018, provision for estimated losses on contracts were $4.2 million and $5.3 million, respectively.

Income Taxes

Income taxes are accounted for using an asset and liability approach that requires the recognition of deferred tax assets and liabilities. Deferred tax assets and liabilities are recognized, using enacted tax rates, for the expected future tax consequences of temporary differences between the book and tax bases of recorded assets and liabilities, operating losses, and tax credit carryforwards. Deferred tax assets are evaluated quarterly and are reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax assets will not be realized.

Tax positions taken or expected to be taken in a tax return are recognized when it is more-likely-than-not, based on technical merits, to be sustained upon examination by taxing authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement, including resolution of related appeals and/or litigation process, if any.

Litigation and Commitments

In the normal course of business, we are defendants in certain litigation, claims and inquiries, including matters relating to environmental laws. In addition, we make various commitments and incur contingent liabilities. Management’s estimates regarding contingent liabilities could differ from actual results.

Environmental Liabilities

Environmental liabilities are recorded when environmental assessments and/or remedial efforts are probable and costs can be reasonably estimated. Generally, the timing of these accruals coincides with the completion of a feasibility study or our commitment to a formal plan of action. Further, we review and update our environmental accruals as circumstances change and/or additional information is obtained that reasonably could be expected to have a meaningful effect on the outcome of a matter or the estimated cost thereof.

Accounting for Stock-Based Compensation

We measure and recognize compensation expense for share-based payment transactions to our employees and non-employees at their estimated fair value. The expense is measured at the grant date, based on the calculated fair value of the share-based award, and is recognized over the requisite service period (generally the vesting period of the equity award). The fair value of stock options are determined using the Black-Scholes-Merton (“Black-Scholes”) valuation model, which requires assumptions and judgments regarding stock price volatility, risk-free interest rates, and expected options terms. Management’s estimates could differ from actual results. The fair value of unvested stock awards is determined based on the closing price of the underlying common stock on the date of grant except for market condition awards for which the fair value was based on a Monte Carlo simulation model.

Earnings Per Share

Basic earnings per share are computed by dividing income available to common shareholders by the weighted-average number of common shares outstanding in each period. Diluted earnings per share is computed by dividing income available to common shareholders by the weighted-average number of common shares outstanding, plus potentially dilutive shares that could be issued if exercised or converted into common stock in each period.

The net income and weighted-average common shares outstanding used to compute earnings per share were as follows:

	(In thousands, except per share data) Years Ended December 31,		
	2019	2018	2017
Net income	$ 32,461	$ 9,035	$ 20,077
Weighted-average number of common shares outstanding			
Basic weighted-average common shares outstanding	11,518	11,390	11,290
Dilutive potential common shares	274	269	268
Diluted weighted-average common shares outstanding	11,792	11,659	11,558
Earnings per share			
Basic	$ 2.82	$ 0.79	$ 1.78
Diluted	$ 2.75	$ 0.77	$ 1.74

Potentially dilutive stock awards to purchase common stock, as shown below, were excluded from the computation of diluted earnings per share because their inclusion would have been anti-dilutive. However, these shares may be potentially dilutive common shares in the future.

	(In thousands) Years Ended December 31,		
	2019	2018	2017
Stock options and stock units	127	208	126

Recent Accounting Pronouncements

New Accounting Guidance Adopted in 2019

In July 2019, the FASB issued ASU 2019-07, “Codification Updates to SEC Sections: Amendments to SEC Paragraphs Pursuant to SEC Final Rule Releases No. 33-10532, Disclosure Update and Simplification, and Nos. 33-10231 and 33-10442, Investment Company Reporting Modernization, and Miscellaneous Updates” (“ASU 2019-07”), which improve, update, and simplify its regulations on financial reporting and disclosure. The new guidance was effective when issued, which is our interim period ending September 28, 2019. The adoption of this standard did not have a material impact on our consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, “Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging” (“ASU 2017-12”), which intends to improve and simplify accounting rules around hedge accounting. ASU 2017-12 refines and expands hedge accounting for both financial (i.e., interest rate) and commodity risks. In addition, it creates more transparency around how economic results are presented, both on the face of the financial statements and in the footnotes. The new guidance is effective for annual periods beginning after December 15, 2018, including interim periods within those annual periods, which is our interim period beginning January 1, 2019. Early adoption is permitted, including adoption in any interim period after the issuance of ASU 2017-12. The adoption of this standard did not have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, “Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” (“ASU 2017-04”), which simplifies the subsequent measurement of goodwill, the amendments eliminate Step Two from the goodwill impairment test. The annual, or interim, goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit’s fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. The amendments also eliminate the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step Two of the goodwill impairment test. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. The new guidance is effective for annual or 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 adoption of this standard did not have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, “Leases (Topic 842)” (“ASU 2016-02”), which requires lessees to present right-of-use assets and lease liabilities on the balance sheet. Lessees are required to apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements or the additional transition method. Under the additional transition method, the cumulative effect of applying the new guidance is recognized as an adjustment to certain captions on the balance sheet, including the opening balance of retained earnings in the first quarter of 2019, and the prior years' financial information will be presented under the prior accounting standard, ASC 840, "Leases," ("ASC 840"). Additional guidance was issued subsequently as follows:

- July 2018, the FASB issued ASU 2018-11, "Leases (Topic 842): Targeted Improvements" ("ASU 2018-11"); and
- July 2018, the FASB issued ASU 2018-10, "Codification Improvements to Topic 842, Leases" ("ASU 2018-10")

All the new guidance was effective for us beginning January 1, 2019. The cumulative impact to our retained earnings at January 1, 2019 was a net decrease of $0.3 million. See Note 2.

Recently Issued Accounting Standards

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740), Simplifying the Accounting for Income Taxes" ("ASU 2019-12"), which removes certain exceptions and provides guidance on various areas of tax accounting. The new guidance is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years, which will be our interim period beginning January 1, 2021. Early adoption is permitted. We are evaluating the impact of this standard.

In April 2019, the FASB issued ASU 2019-04, "Codification Improvements to Topic 326, Financial Instruments - Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Statements" ("ASU 2019-04"), which clarify, correct, and improve various aspects of the guidance in ASU 2016-01, ASU 2016-13, and ASU 2017-12. The new guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, which will be our interim period beginning January 1, 2020. We are evaluating the impact of this standard.

In March 2019, the FASB issued ASU 2019-01, "Leases (Topic 842): Codification Improvements" ("ASU 2019-01"), which addresses various lessor implementation issues and clarifies that lessees and lessors are exempt from certain interim disclosure requirements associated with the adoption of ASC 842. The new guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, which will be our interim period beginning January 1, 2020. Early adoption is permitted. We are evaluating the impact of this standard.

In August 2018, the FASB issued ASU 2018-14, "Compensation - Retirement Benefits - Defined Benefit Plans - General (Topic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans" ("ASU 2018-14"), which will remove disclosures that no longer are considered cost-beneficial, clarify the specific requirements of disclosures, and add disclosure requirements identified as relevant. The new guidance is effective for fiscal years ending after December 15, 2020 and no amendments are made to the interim disclosure requirements. Early adoption is permitted. We are evaluating the impact of this standard.

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement" ("ASU 2018-13"), which should improve the effectiveness of fair value measurement disclosures by removing certain requirements, modifying certain requirements, and adding certain new requirements. The new guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, which will be our interim period beginning January 1, 2020. Early adoption is permitted. We are evaluating the impact of this standard.

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"), which is intended to improve financial reporting by requiring timelier recording of credit losses on loans and other financial instruments held by financial institutions and other organizations. ASU 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. Financial institutions and other organizations will now use forward-looking information to better inform their credit loss estimates. Many of the loss estimation techniques applied today will still be permitted, although the inputs to those techniques will change to reflect the full amount of expected credit losses. Organizations will continue to use judgment to determine which loss estimation method is appropriate for their circumstances. ASU 2016-13 requires enhanced disclosures to help investors and other financial statement users better understand significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an organization's portfolio. These disclosures include qualitative and quantitative requirements that provide additional information about the amounts recorded in the financial statements. The new guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, which will be our interim period beginning January 1, 2020. We are evaluating the impact of this standard.

Note 2. Adoption of Accounting Standards Codification 842

We adopted ASC 842 with an initial application as of January 1, 2019. We utilized the additional transition method, under which the cumulative effect of initially applying the new guidance is recognized as an adjustment to certain captions on the consolidated balance sheet, including the opening balance of retained earnings in the year ended December 31, 2019. As part of the adoption of ASC 842, we have elected to utilize the following practical expedients that are permitted under ASC 842:

- Need not reassess whether any expired or existing contracts are or contain leases;
- Need not reassess the lease classification for any expired or existing leases;
- Need not reassess initial direct costs for any existing leases;
- As an accounting policy election by class of underlying asset, choose not to separate nonlease components from lease components and instead to account for each separate lease component and the nonlease components associated with that lease component as a single lease component; and
- As an accounting policy election not to apply the recognition requirements in ASC 842 to short term leases (a lease at commencement date has a lease term of 12 months or less and does not contain a purchase option that the lessee is reasonably certain to exercise).

The net impact to the various captions on our January 1, 2019 opening consolidated balance sheets was as follows:

	(Dollars in thousands)		
Unaudited Consolidated Balance Sheets	December 31, 2018 Balances Without Adoption of ASC 842	Effect of Adoption	January 1, 2019 Balances With Adoption of ASC 842
Assets			
Other current assets	$ 6,531	$ (208)	$ 6,323
Operating lease right-of-use assets	$ —	$ 18,985	$ 18,985
Non-current deferred income taxes	$ 308	$ 5	$ 313
Other assets	$ 5,155	$ 254	$ 5,409
Liabilities			
Operating lease liabilities	$ —	$ 2,544	$ 2,544
Accrued and other liabilities	$ 37,786	$ (329)	$ 37,457
Non-current operating lease liabilities	$ —	$ 18,117	$ 18,117
Non-current deferred income taxes	$ 18,070	$ (76)	$ 17,994
Other long-term liabilities	$ 14,441	$ (956)	$ 13,485
Shareholders' Equity			
Retained earnings	$ 180,356	$ (264)	$ 180,092

The net impact to retained earnings as a result of adopting ASC 842 on the January 1, 2019 opening balance sheet was shown as a change in "other" on the consolidated statements of cash flows.

We have operating and finance leases for manufacturing facilities, corporate offices, and various equipment. Our leases have remaining lease terms of 1 to 11 years, some of which include options to extend the leases for up to 5 years, and some of which include options to terminate the leases within 1 year.

The components of lease expense for the year ended December 31, 2019 were as follows:

	(In thousands)
Operating leases expense	$ 3,963
Finance leases expense:	
Amortization of right-of-use assets	$ 216
Interest on lease liabilities	42
Total finance lease expense	$ 258

Short term and variable lease expense for the year ended December 31, 2019 were not material.

Supplemental cash flow information related to leases for the year ended December 31, 2019 was as follows:

		(In thousands)
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$	4,030
Operating cash flows from finance leases	$	39
Financing cash flows from finance leases	$	169
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	$	2,574
Finance leases	$	483

The weighted average remaining lease terms as of December 31, 2019 were as follows:

	(In years)
Operating leases	7
Finance leases	4

When a lease is identified, we recognize a right-of-use asset and a corresponding lease liability based on the present value of the lease payments over the lease term discounted using our incremental borrowing rate, unless an implicit rate is readily determinable. As the discount rate in our leases is usually not readily available, we use our own incremental borrowing rate as the discount rate. Our incremental borrowing rate is based on the interest rate on our term loan, which is a secured rate. The interest rate on our term loan is based on London Interbank Offered Rate ("LIBOR") plus an applicable margin. The difference between a three year, five year, or seven year LIBOR rate was not deemed significant and thus, we have chosen to use the five year incremental borrowing rate for all our leases.

The weighted average discount rates as of December 31, 2019 were as follows:

Operating leases	6.5%
Finance leases	6.5%

Maturity of operating and finance lease liabilities are as follows:

	(In thousands)	
	Operating Leases	Finance Leases
2020	$ 4,178	$ 242
2021	4,147	229
2022	3,756	92
2023	3,425	53
2024	3,003	26
Thereafter	7,022	46
Total lease payments	25,531	688
Less imputed interest	5,010	74
Total	$ 20,521	$ 614

Operating lease payments include $11.4 million related to options to extend lease terms that are reasonably certain of being exercised. As of December 31, 2019, there are no legally binding minimum lease payments for leases signed but not yet commenced.

Finance lease payments related to options to extend lease terms that are reasonably certain of being exercised are not significant. As of December 31, 2019, it excludes $1.3 million of legally binding minimum lease payments for leases signed but not yet commenced. These finance leases will commence during 2020 with lease terms of 7 years to 10 years.

As previously disclosed in our 2018 Annual Report on Form 10-K and under the previous accounting maturities of lease liabilities were as follows as of December 31, 2018:

	(In thousands)
2019	$ 3,680
2020	3,405
2021	2,789
2022	1,404
2023	980
Thereafter	580
Total	$ 12,838

Note 3. Business Combinations

Nobles Worldwide, Inc.

On October 8, 2019, we acquired 100.0% of the outstanding equity interests of Nobles Parent Inc., the parent company of Nobles Worldwide, Inc. (“Nobles”), a privately-held global leader in the design and manufacturing of high performance ammunition handling systems for a wide range of military platforms including fixed-wing aircraft, rotary-wing aircraft, ground vehicles, and shipboard systems. Nobles is located in St. Croix Falls, Wisconsin. The acquisition of Nobles advances our strategy to diversify and offer more customized, value-driven engineered products with aftermarket opportunities.

The purchase price for Nobles was $77.0 million, net of cash acquired, all payable in cash. We paid $77.3 million upon the closing of the transaction. We preliminarily allocated the gross purchase price of $77.3 million to the assets acquired and liabilities assumed at estimated fair values. The excess of the purchase price over the aggregate fair values of the net assets was recorded as goodwill. The allocation is subject to revision as the estimates of fair value of the assets acquired and liabilities assumed are based on preliminary information and are subject to refinement. We are in the process of reviewing third party valuation of the assets and liabilities.

The following table summarizes the preliminary estimated fair value of the assets acquired and liabilities assumed at the date of acquisition (in thousands):

	Estimated Fair Value
Cash	$ 658
Accounts receivable	1,880
Inventories	2,866
Other current assets	168
Property and equipment	2,319
Intangible assets	37,700
Goodwill	34,860
Other non-current assets	675
Total assets acquired	81,126
Current liabilities	(2,285)
Net non-current deferred tax liability	(861)
Other non-current liabilities	(675)
Total liabilities assumed	(3,821)
Total purchase price allocation	$ 77,305

	Useful Life (In years)	Estimated Fair Value (In thousands)
Intangible assets:		
Customer relationships	15-16	$ 34,700
Trade names and trademarks	15	3,000
		$ 37,700

The intangible assets acquired of $37.7 million were preliminarily determined based on the estimated fair values using valuation techniques consistent with the income approach to measure fair value. The useful lives were estimated based on the underlying agreements or the future economic benefit expected to be received from the assets. The fair values of the identifiable intangible assets were estimated using several valuation methodologies, which represented Level 3 fair value measurements. The value for customer relationships was estimated based on a multi-period excess earnings approach, while the value for trade names and trademarks was assessed using the relief from royalty methodology.

The goodwill of $34.9 million arising from the acquisition is attributable to the benefits we expect to derive from expected synergies from the transaction, including complementary products that will enhance our overall product portfolio, opportunities within new markets, and an acquired assembled workforce. All the goodwill was assigned to the Structural Systems segment. The Nobles acquisition, for tax purposes, is also deemed a stock acquisition and thus, the goodwill recognized is not deductible for income tax purposes except for $6.7 million of pre-acquisition goodwill that is tax deductible.

Acquisition related transaction costs were not included as components of consideration transferred but have been expensed as incurred. Total acquisition-related transaction costs incurred by us were $0.8 million during 2019 and charged to selling, general and administrative expenses.

Nobles' results of operations have been included in our consolidated statements of income since the date of acquisition as part of the Structural Systems segment. Pro forma results of operations of the Nobles acquisition have not been presented as the effect of the Nobles acquisition was not material to our financial results.

Certified Thermoplastics Co., LLC

In April 2018, we acquired 100.0% of the outstanding equity interests of Certified Thermoplastics Co., LLC ("CTP"), a privately-held leader in precision profile extrusions and extruded assemblies of engineered thermoplastic resins, compounds, and alloys for a wide range of commercial aerospace, defense, medical, and industrial applications. CTP is located in Santa Clarita, California. The acquisition of CTP was part of our strategy to diversify towards more customized, higher value, engineered products with greater aftermarket potential.

The purchase price for CTP was $30.7 million, net of cash acquired, all payable in cash. We paid an aggregate of $30.8 million in cash related to this transaction. We allocated the gross purchase price of $30.8 million to the assets acquired and liabilities assumed at estimated fair values. The estimated fair value of the assets acquired included $8.1 million of intangible assets, $2.2 million of inventories, $1.5 million of accounts receivable, $0.6 million of property and equipment, $0.1 million of cash, less than $0.1 million of other current assets, and $0.4 million of liabilities assumed. The excess of the purchase price over the aggregate fair values of the assets acquired and liabilities assumed of $18.6 million was recorded as goodwill. The intangible assets acquired were comprised of $6.9 million for customer relationships and $1.2 million for trade names and trademarks, all of which were assigned an estimated useful life of 10 years. All the goodwill was assigned to the Structural Systems segment. Since the CTP acquisition, for tax purposes, was deemed an asset acquisition, the goodwill recognized is deductible for income tax purposes.

CTP's results of operations have been included in our consolidated statements of income since the date of acquisition as part of the Structural Systems segment.

Note 4. Restructuring Activities

In November 2017, management approved and commenced a restructuring plan that was intended to increase operating efficiencies ("2017 Restructuring Plan"). We completed the 2017 Restructuring Plan as of December 31, 2018 and have recorded cumulative expenses of $23.6 million, with $14.8 million recorded during 2018, and $8.8 million recorded during 2017.

In the Electronic Systems segment, we recorded cumulative expenses of $3.8 million for severance and benefits which were classified as restructuring charges. We recorded cumulative of $0.9 million for loss on early exit from lease termination which was classified as restructuring charges. We also recorded cumulative expenses of $0.9 million of other expenses which were classified as restructuring charges. In addition, we recorded cumulative expenses of $0.2 million for professional service fees which were classified as restructuring charges. Further, we recorded cumulative non-cash expenses of $0.1 million for inventory write down which were classified as cost of sales. Finally, we recorded cumulative non-cash expenses of $0.1 million for property and equipment impairment which were classified as restructuring charges.

In the Structural Systems segment, we recorded cumulative expenses of $3.0 million for severance and benefits which were classified as restructuring charges. We recorded cumulative non-cash expenses of $9.8 million for property and equipment impairment which were classified as restructuring charges. We also recorded cumulative non-cash expenses of $0.5 million for inventory write down which were classified as cost of sales. Further, we recorded cumulative other expenses of $0.4 million which were classified as restructuring charges.

In Corporate, we recorded cumulative expenses of $1.4 million for severance and benefits which was classified as restructuring charges. We recorded cumulative non-cash expenses of $1.4 million for stock-based compensation awards which were modified, all of which were classified as restructuring charges. We also recorded cumulative expenses of $1.0 million for professional service fees which were classified as restructuring charges.

As of December 31, 2019, all restructuring activities have been completed and thus, there were no accruals remaining.

Our restructuring activities for 2019 were as follows (in thousands):

	December 31, 2018	2019				December 31, 2019
	Balance	Charges	Cash Payments	Adoption of ASC 842 Adjustment	Change in Estimates	Balance
Severance and benefits	$ 2,631	$ —	$ (2,631)	$ —	$ —	$ —
Lease termination	861	—	(126)	(735)	—	—
Professional service fees	43	—	(43)	—	—	—
Other	416	—	(416)	—	—	—
Total charged to restructuring charges	3,951	—	(3,216)	(735)	—	—
Inventory reserve	50	—	—	—	(50)	—
Total charged to cost of sales	50	—	—	—	(50)	—
Ending balance	$ 4,001	$ —	$ (3,216)	$ (735)	$ (50)	$ —

Note 5. Inventories

Inventories consisted of the following:

	(In thousands) December 31,	
	2019	2018
Raw materials and supplies	$ 98,151	$ 89,767
Work in process	10,887	9,199
Finished goods	3,444	2,159
Total	$ 112,482	$ 101,125

Note 6. Property and Equipment, Net

Property and equipment, net consisted of the following:

	(In thousands) December 31,		Range of Estimated
	2019	2018	Useful Lives
Land	$ 15,765	$ 15,662	
Buildings and improvements	61,626	57,642	5 - 40 Years
Machinery and equipment	167,688	160,163	2 - 20 Years
Furniture and equipment	18,714	19,676	2 - 10 Years
Construction in progress	14,343	8,742	
	278,136	261,885	
Less accumulated depreciation	162,920	154,840	
Total	$ 115,216	$ 107,045	

Depreciation expense was $13.5 million, $13.5 million, and $13.2 million, for the years ended December 31, 2019, 2018 and 2017, respectively.

Note 7. Goodwill and Other Intangible Assets

Goodwill

The carrying amounts of goodwill, by operating segment, for the years ended December 31, 2019 and 2018 were as follows:

	(In thousands)		
	Electronic Systems	Structural Systems	Consolidated Ducommun
Gross goodwill	$ 199,157	$ 18,622	$ 217,779
Accumulated goodwill impairment	(81,722)	—	(81,722)
Balance at December 31, 2018	117,435	18,622	136,057
Goodwill from acquisition during the period	—	34,860	34,860
Balance at December 31, 2019	$ 117,435	$ 53,482	$ 170,917

We perform our annual goodwill impairment test as of the first day of the fourth quarter. See Note 1.

We acquired Certified Thermoplastics Co., LLC ("CTP") in April 2018 and recorded goodwill of $18.6 million in our Structural Systems segment. Since a goodwill impairment analysis is required to be performed within one year of the acquisition date or sooner upon a triggering event, we performed a Step One goodwill impairment analysis as of April 2019 for our Structural Systems segment, which is also our reporting unit. The fair value of our Structural Systems segment exceeded its carrying value by 85% and thus, was not deemed impaired.

On October 8, 2019, we acquired 100.0% of the outstanding equity interests of Nobles for a purchase price of $77.0 million, net of cash acquired. We allocated the gross purchase price of $77.3 million to the assets acquired and liabilities assumed at estimated fair values. The excess of the purchase over the aggregate fair values was recorded as goodwill within the Structural Systems reporting unit. See Note 3.

In April 2018, we acquired 100.0% of the outstanding equity interests of CTP for a purchase price of $30.7 million, net of cash acquired. We allocated the gross purchase price of $30.8 million to the assets acquired and liabilities assumed at estimated fair values. The excess of the purchase over the aggregate fair values was recorded as goodwill within the Structural Systems reporting unit. See Note 3.

Other intangible assets are related to acquisitions, including Nobles, and recorded at fair value at the time of the acquisition. Other intangible assets with finite lives are generally amortized on the straight-line method over periods ranging from 10 to 18 years. Intangible assets are as follows:

		(In thousands)					
		December 31, 2019			December 31, 2018		
	Wtd. Avg Life (Yrs)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Finite-lived assets							
Customer relationships	17	$ 221,900	$ 88,838	$ 133,062	$ 187,200	$ 77,824	$ 109,376
Trade names and trademarks	14	5,500	450	5,050	2,500	193	2,307
Contract renewal	14	1,845	1,757	88	1,845	1,625	220
Technology	15	400	238	162	400	211	189
Total		$ 229,645	$ 91,283	$ 138,362	$ 191,945	$ 79,853	$ 112,092

The carrying amount of other intangible assets by operating segment as of December 31, 2019 and 2018 was as follows:

	(In thousands)					
	December 31, 2019			December 31, 2018		
	Gross	Accumulated Amortization	Net Carrying Value	Gross	Accumulated Amortization	Net Carrying Value
Other intangible assets						
Electronic Systems	$ 164,545	$ 71,527	$ 93,018	$ 164,545	$ 62,108	$ 102,437
Structural Systems	65,100	19,756	45,344	27,400	17,745	9,655
Total	$ 229,645	$ 91,283	$ 138,362	$ 191,945	$ 79,853	$ 112,092

Amortization expense of other intangible assets was $11.4 million, $10.7 million and $9.3 million for the years ended December 31, 2019, 2018 and 2017, respectively. Future amortization expense by operating segment is expected to be as follows:

	(In thousands)		
	Electronic Systems	Structural Systems	Consolidated Ducommun
2020	$ 9,348	$ 3,719	$ 13,067
2021	9,287	3,614	12,901
2022	9,288	3,553	12,841
2023	9,287	3,495	12,782
2024	9,288	3,260	12,548
Thereafter	46,520	27,703	74,223
	$ 93,018	$ 45,344	$ 138,362

Note 8. Accrued Liabilities

The components of accrued liabilities consisted of the following:

	(In thousands) December 31,	
	2019	2018
Accrued compensation	$ 31,342	$ 29,616
Accrued income tax and sales tax	163	82
Other	6,115	8,088
Total	$ 37,620	$ 37,786

Note 9. Long-Term Debt

Long-term debt and the current period interest rates were as follows:

	(In thousands) December 31, 2019	(In thousands) December 31, 2018
Term loans	$ 310,000	$ 233,000
Revolving credit facility	—	—
Total debt	310,000	233,000
Less current portion	7,000	2,330
Total long-term debt, less current portion	303,000	230,670
Less debt issuance costs - term loans	2,113	1,802
Total long-term debt, net of debt issuance costs - term loans	$ 300,887	$ 228,868
Debt issuance costs - revolving credit facility (1)	$ 1,894	$ 1,907
Weighted-average interest rate	6.87%	4.71%

(1) Included as part of other assets.

Future long-term debt payments at December 31, 2019 were as follows:

	(In thousands)
2020	$ 7,000
2021	7,000
2022	7,000
2023	7,000
2024	112,000
Thereafter	170,000
Total	$ 310,000

On December 20, 2019, we completed the refinancing of a portion of our existing debt by entering into a new revolving credit facility (“New Revolving Credit Facility”) to replace the existing revolving credit facility that was entered into in November 2018 (“2018 Revolving Credit Facility”) and entering into a new term loan (“New Term Loan”). The New Revolving Credit Facility is a $100.0 million senior secured revolving credit facility that matures on December 20, 2024 replacing the $100.0 million 2018 Revolving Credit Facility that would have matured on November 21, 2023. The New Term Loan is a $140.0 million senior secured term loan that matures on December 20, 2024. We also have an existing $240.0 million senior secured term loan that was entered into in November 2018 that matures on November 21, 2025 (“2018 Term Loan”). The original amounts available under the New Revolving Credit Facility, New Term Loan, and 2018 Term Loan (collectively, the “Credit Facilities”) in aggregate, totaled $480.0 million.

The New Term Loan bears interest, at our option, at a rate equal to either (i) the Eurodollar Rate (defined as the London Interbank Offered Rate [“LIBOR”]) plus an applicable margin ranging from 1.50% to 2.50% per year or (ii) the Base Rate (defined as the highest of [a] Federal Funds Rate plus 0.50%, [b] Bank of America’s prime rate, and [c] the Eurodollar Rate plus 1.00%) plus an applicable margin ranging from 0.50% to 1.50% per year, in each case based upon the consolidated total net adjusted leverage ratio, typically payable quarterly. In addition, the New Term Loan requires installment payments of 1.25% of the original outstanding principal balance of the New Term Loan amount on a quarterly basis.

The New Revolving Credit Facility bears interest, at our option, at a rate equal to either (i) the Eurodollar Rate (defined as LIBOR) plus an applicable margin ranging from 1.50% to 2.50% per year or (ii) the Base Rate (defined as the highest of [a] Federal Funds Rate plus 0.50%, [b] Bank of America’s prime rate, and [c] the Eurodollar Rate plus 1.00%) plus an applicable margin ranging from 0.50% to 1.50% per year, in each case based upon the consolidated total net adjusted leverage ratio, typically payable quarterly. The undrawn portion of the commitment of the New Revolving Credit Facility is subject to a commitment fee ranging from 0.175% to 0.275%, based upon the consolidated total net adjusted leverage ratio.

In November 2018, we completed credit facilities to replace the then existing credit facilities. The November 2018 credit facilities consisted of the 2018 Term Loan and the 2018 Revolving Credit Facility.

The 2018 Term Loan bears interest, at our option, at a rate equal to either (i) the Eurodollar Rate (defined as LIBOR plus an applicable margin ranging from 3.75% to 4.00% per year or (ii) the Base Rate (defined as the highest of [a] Federal Funds Rate plus 0.50%, [b] Bank of America's prime rate, and [c] the Eurodollar Rate plus 1.00%) plus an applicable margin ranging from 3.75% to 4.00% per year, in each case based upon the consolidated total net adjusted leverage ratio, typically payable quarterly. In addition, the 2018 Term Loan requires installment payments of 0.25% of the outstanding principal balance of the 2018 Term Loan amount on a quarterly basis.

The 2018 Revolving Credit Facility bears interest, at our option, at a rate equal to either (i) the Eurodollar Rate (defined as LIBOR) plus an applicable margin ranging from 1.75% to 2.75% per year or (ii) the Base Rate (defined as the highest of [a] Federal Funds Rate plus 0.50%, [b] Bank of America's prime rate, and [c] the Eurodollar Rate plus 1.00%) plus an applicable margin ranging from 0.75% to 1.75% per year, in each case based upon the consolidated total net adjusted leverage ratio, typically payable quarterly. The undrawn portion of the commitment of the 2018 Revolving Credit Facility is subject to a commitment fee ranging from 0.200% to 0.300%, based upon the consolidated total net adjusted leverage ratio.

Further, under the Credit Facilities, if we meet the annual excess cash flow threshold, we will be required to make excess flow payments. The annual mandatory excess cash flow payments will be based on (i) 50% of the excess cash flow amount if the adjusted leverage ratio is greater than 3.25 to 1.0, (ii) 25% of the excess cash flow amount if the adjusted leverage ratio is less than or equal to 3.25 to 1.0 but greater than 2.50 to 1.0, and (iii) zero percent of the excess cash flow amount if the adjusted leverage ratio is less than or equal to 2.50 to 1.0. As of December 31, 2019, we were in compliance with all covenants required under the Credit Facilities.

We have been making periodic voluntary principal prepayments on our credit facilities, however, during 2019, as a result of drawing down on the New Term Loan, we made no net aggregate voluntary prepayments.

In conjunction with entering into the New Revolving Credit Facility and the New Term Loan, we drew down the entire $140.0 million on the New Term Loan and used those proceeds to pay off and close the 2018 Revolving Credit Facility of $58.5 million, pay down a portion of the 2018 Term Loan of $56.0 million, pay the accrued interest associated with the amounts being paid down on the 2018 Revolving Credit Facility and 2018 Term Loan, pay the fees related to this transaction, and the remainder will be used for general corporate expenses. The New Term Loan and 2018 Term Loan were considered a modification of debt and thus, no gain or loss was recorded. Instead, the new fees paid to the lenders of $0.6 million were capitalized and are being amortized over the life of the New Term Loan. The remaining debt issuance costs related to the 2018 Term Loan of $1.5 million will continue to be amortized over its remaining life.

The New Revolving Credit Facility that replaced the 2018 Revolving Credit Facility was considered an extinguishment of debt except for the portion related to the creditors that were part of both the New Revolving Credit Facility and the 2018 Revolving Credit Facility and in which case, it was considered a modification of debt. As a result, we expensed the portion of the unamortized debt issuance costs related to the 2018 Revolving Credit Facility that was considered an extinguishment of debt of $0.5 million. In addition, the new fees paid to the lenders of $0.5 million as part of the New Revolving Credit Facility were capitalized and are being amortized over its remaining life. Further, the remaining debt issuance costs related to the 2018 Revolving Credit Facility of $1.1 million will also be amortized its remaining life.

In conjunction with entering into the 2018 Credit Facilities in November 2018, we drew down the entire $240.0 million on the 2018 Term Loan, $7.9 million on the 2018 Revolving Credit Facility and used those proceeds along with current cash on hand to pay off the then existing credit facilities of $247.9 million. The 2018 Term Loan replaced the term loan that was a part of the then existing credit facilities was considered an extinguishment of debt except for the portion related to a creditor that was part of the then existing term loan and the 2018 Term Loan and in which case, it was considered a modification of debt. As a result, we expensed the portion of the unamortized debt issuance costs related to the then existing term loan that was considered an extinguishment of debt of $0.4 million. In addition, the 2018 Revolving Credit Facility replaced the then existing revolving credit facility that was part of the then existing credit facilities was considered an extinguishment of debt except for the portion related to the creditors that were part of the then existing revolving credit facility and the 2018 Revolving Credit Facility and in which case, it was considered a modification of debt. As a result, we expensed the portion of the unamortized debt issuance costs related to the 2018 Revolving Credit Facility that was considered an extinguishment of debt of $0.5 million. As such, an aggregate total loss on extinguishment of debt of $0.9 million was recorded in 2018.

Further, we incurred $3.5 million of new debt issuance costs that can be capitalized related to the 2018 Credit Facilities, of which $1.7 million were allocated to the 2018 Term Loan and the remaining $1.8 million was allocated to the 2018 Revolving Credit Facility. The 2018 Term Loan new debt issuance costs of $1.7 million and remaining unamortized then existing term loan debt issuance costs of $0.1 million, for an aggregate total of $1.8 million of debt issuance costs related to the 2018 Term Loan were capitalized and are being amortized over the seven year life of the 2018 Term Loan. The 2018 Revolving Credit Facility new debt issuance costs of $1.8 million and remaining unamortized then existing revolving credit facility debt issuance costs of $0.2 million, for an aggregate total of $2.0 million of debt issuance costs related to the 2018 Revolving Credit Facility were capitalized and were being amortized over the five years life of the 2018 Revolving Credit Facility.

On October 8, 2019, we acquired 100.0% of the outstanding equity interests of Nobles for a purchase price of $77.0 million, net of cash acquired, all payable in cash. Upon the closing of the transaction, we paid $77.3 million in cash by drawing down on the 2018 Revolving Credit Facility. See Note 3.

In April 2018, we acquired CTP for a purchase price of $30.7 million, net of cash acquired, all payable in cash. We paid an aggregate of $30.8 million in cash by drawing down on the then existing revolving credit facility. See Note 3.

In September 2017, we acquired Lightning Diversion Systems, LLC (“LDS”) for a purchase price of $60.0 million, net of cash acquired, all payable in cash. Upon the closing of the transaction, we paid $61.4 million in cash by drawing down on our then existing revolving credit facility. The remaining $0.6 million was paid in October 2017 in cash, also by drawing down on our then existing revolving credit facility.

As of December 31, 2019, we had $99.8 million of unused borrowing capacity under the New Revolving Credit Facility, after deducting $0.2 million for standby letters of credit.

The New Credit Facilities were entered into by us (“Parent Company”) and guaranteed by all of our subsidiaries, other than two subsidiaries that were considered minor (“Subsidiary Guarantors”). The Subsidiary Guarantors jointly and severally guarantee the New Credit Facilities. The Parent Company has no independent assets or operations and therefore, no consolidating financial information for the Parent Company and its subsidiaries are presented.

In October 2015, we entered into interest rate cap hedges designated as cash flow hedges with a portion of these interest rate cap hedges maturing on a quarterly basis, and a final quarterly maturity date of June 2020, in aggregate, totaling $135.0 million of our debt. We paid a total of $1.0 million in connection with the interest rate cap hedges. See Note 1 for further information.

In December 2018 and 2017, we entered into agreements to purchase $2.2 million and $14.2 million of industrial revenue bonds (“IRBs”) issued by the city of Parsons, Kansas (“Parsons”) and concurrently, sold $2.2 million and $14.2 million of property and equipment (“Property”) to Parsons as well as entered into lease agreements to lease the Property from Parsons (“Lease”) with lease payments totaling $2.2 million and $14.2 million over the lease terms, respectively. The sale of the Property and concurrent lease back of the Property in December 2018 and 2017 did not meet the sale-leaseback accounting requirements as a result of our continuous involvement with the Property and thus, the $2.2 million and $14.2 million in cash received from Parsons was not recorded as a sale but as a financing obligation, respectively. Further, the Lease included a right of offset so long as we continue to own the IRBs and thus, the financing obligations of $2.2 million and $14.2 million were offset against the $2.2 million and $14.2 million, respectively, of IRBs assets and are presented net on the consolidated balance sheets with no impact to the consolidated statements of income or consolidated cash flow statements.

Note 10. Shareholders’ Equity

We are authorized to issue five million shares of preferred stock. At December 31, 2019 and 2018, no preferred shares were issued or outstanding.

Note 11. Stock-Based Compensation

Stock Incentive Compensation Plans

We currently have two stock incentive plans: i) the 2013 Stock Incentive Plan, as amended (the “2013 Plan”), which expires on May 2, 2028, provided that Incentive Stock Options may not be granted after February 21, 2028, and ii) the 2018 Employee Stock Purchase Plan (“ESPP”). The 2013 Plan permit awards of stock options, restricted stock units, performance stock units and other stock-based awards to our officers, key employees and non-employee directors on terms determined by the Compensation Committee of the Board of Directors (the “Compensation Committee”). The aggregate number of shares available for issuance under the 2013 Plan is 1,690,000. Under the 2013 Plan, no more than an aggregate of 337,693 shares are available for issue of stock-based awards other than stock options and stock appreciation rights after December 31, 2017. As of December 31, 2019, shares available for future grant under the 2013 Plan are 222,132. Prior to the adoption of the 2013 Plan, we granted stock-based awards to purchase shares of our common stock under certain predecessor plans. No further awards can be granted under these predecessor plans.

Employee Stock Purchase Plan

The ESPP was adopted by the Board of Directors and approved by the shareholders in 2018, including 750,000 shares that can be awarded. The first offering period closed on July 31, 2019. Under the ESPP, our employees who elect to participate have the right to purchase common stock at a 15% discount from the lower of the market value of the common stock at the beginning or the end of each six month offering period and the discount will be treated as compensation to those employees. Employees purchase common stock using payroll deductions, which may not exceed 10% of their eligible compensation and other limitations. The Compensation Committee administers the ESPP. As of December 31, 2019, there are 723,479 shares available for future award grants.

Stock Options

In the years ended December 31, 2019, 2018, and 2017, we granted stock options to our officers and key employees of 189,170, 176,940, and 129,400, respectively, with weighted-average grant date fair values of $15.95, $12.87, and $11.88, respectively. Stock options have been granted with an exercise price equal to the fair market value of our stock on the date of grant and expire not more than ten years from the date of grant. The stock options typically vest over a period of three or four years from the date of grant. The option price and number of shares are subject to adjustment under certain dilutive circumstances. If an employee terminates employment, the non-vested portion of the stock options will not vest and all rights to the non-vested portion will terminate completely.

Stock option activity for the year ended December 31, 2019 were as follows:

	Number of Stock Options	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2019	363,225	$ 28.33		
Granted	189,170	$ 41.97		
Exercised	(80,693)	$ 24.97		
Expired	(2,857)	$ 20.09		
Forfeited	(22,027)	$ 29.99		
Outstanding at December 31, 2019	446,818	$ 34.68	7.7	$ 7,319
Exerciseable at December 31, 2019	96,947	$ 27.70	5.3	$ 2,265

Changes in nonvested stock options for the year ended December 31, 2019 were as follows:

	Number of Stock Options	Weighted-Average Grant Date Fair Value
Nonvested at January 1, 2019	292,013	$ 12.20
Granted	189,170	$ 15.95
Vested	(109,285)	$ 11.95
Forfeited	(22,027)	$ 10.24
Nonvested at December 31, 2019	349,871	$ 14.33

The aggregate intrinsic value of stock options represents the amount by which the market price of our common stock exceeds the exercise price of the stock option. The aggregate intrinsic value of stock options exercised for the years ended December 31, 2019, 2018 and 2017 was $1.8 million, $1.3 million, and $2.5 million, respectively. Cash received from stock options exercised for the years ended December 31, 2019, 2018 and 2017 was $2.6 million, $1.8 million, and $4.3 million, respectively, with related tax benefits of $0.6 million, $0.3 million, and $0.9 million, respectively. The total amount of stock options vested and expected to vest in the future is 446,818 shares with a weighted-average exercise price of $34.68 and an aggregate intrinsic value of $7.3 million. These stock options have a weighted-average remaining contractual term of 7.7 years.

The share-based compensation cost expensed for stock options for the years ended December 31, 2019, 2018, and 2017 (before tax benefits) was $1.6 million, $0.9 million, and $0.7 million, respectively, and is included in selling, general and administrative expenses on the consolidated income statements. At December 31, 2019, total unrecognized compensation cost (before tax benefits) related to stock options of $3.7 million is expected to be recognized over a weighted-average period of 2.0 years. The total fair value of stock options vested during the years ended December 31, 2019, 2018, and 2017 was $1.3 million, $0.8 million, and $0.8 million, respectively.

We apply fair value accounting for stock-based compensation based on the grant date fair value estimated using a Black-Scholes-Merton ("Black-Scholes") valuation model. The assumptions used to compute the fair value of stock option grants under the Stock Incentive Plans for years ended December 31, 2019, 2018, and 2017 were as follows:

	Years Ended December 31,		
	2019	2018	2017
Risk-free interest rate	1.92%	2.65%	1.75%
Expected volatility	40.44%	53.66%	50.37%
Expected dividends	—	—	—
Expected term (in months)	60	36	48

We recognize compensation expense, net of an estimated forfeiture rate, on a straight-line basis over the requisite service period of the award. We have award populations with option vesting terms of three and four years. We estimate the forfeiture rate based on our historic experience, attempting to determine any discernible activity patterns. The expected life computation is based on historic exercise patterns and post-vesting termination behavior. The risk-free interest rate for periods within the contractual life of the award is based on the U.S. Treasury yield curve in effect at the time of grant. The expected volatility is derived from historical volatility of our common stock. We suspended payments of dividends after the first quarter of 2011.

Restricted Stock Units

We granted restricted stock units ("RSUs") to certain officers, key employees and non-employee directors of 62,520, 81,230, and 135,350 RSUs during the years ended December 31, 2019, 2018, and 2017, respectively, with weighted-average grant date fair values (equal to the fair market value of our stock on the date of grant) of $41.04, $32.36, and $28.97 per share, respectively. RSUs represent a right to receive a share of stock at future vesting dates with no cash payment required from the holder. The RSUs typically have a three year vesting term of 33%, 33% and 34% on the first, second and third anniversaries of the date of grant, respectively. If an employee terminates employment, their non-vested portion of the RSUs will not vest and all rights to the non-vested portion will terminate.

Restricted stock unit activity for the year ended December 31, 2019 was as follows:

	Number of Restricted Stock Units	Weighted-Average Grant Date Fair Value
Outstanding at January 1, 2019	157,937	$ 28.96
Granted	62,520	$ 41.04
Vested	(85,279)	$ 27.94
Forfeited	(7,755)	$ 30.80
Outstanding at December 31, 2019	127,423	$ 36.22

The share-based compensation cost expensed for RSUs for the years ended December 31, 2019, 2018, and 2017 (before tax benefits) was $2.4 million, $2.1 million, and $2.0 million respectively, and is included in selling, general and administrative expenses on the consolidated income statements. At December 31, 2019, total unrecognized compensation cost (before tax benefits) related to RSUs of $2.9 million is expected to be recognized over a weighted average period of 1.4 years. The total fair value of RSUs vested for the years ended December 31, 2019, 2018, and 2017 was $2.4 million, $2.7 million, and $3 million, respectively. The tax benefit realized from vested RSUs for the years ended December 31, 2019, 2018, and 2017 was $0.6 million, $0.6 million, and $1.1 million, respectively.

Performance Stock Units

We granted performance stock awards ("PSUs") to certain key employees of 58,178, 64,700, and 126,000 PSUs during the years ended December 31, 2019, 2018, and 2017, respectively, with weighted-average grant date fair values of $43.80, $35.16, and $26.31 per share, respectively. PSU awards are subject to the attainment of performance goals established by the Compensation Committee, the periods during which performance is to be measured, and all other limitations and conditions applicable to the awarded shares. Performance goals are based on a pre-established objective formula that specifies the manner of determining the number of performance stock awards that will be granted if performance goals are attained. If an employee terminates employment, their non-vested portion of the PSUs will not vest and all rights to the non-vested portion will terminate.

Performance stock activity for the year ended December 31, 2019 was as follows:

	Number of Performance Stock Units	Weighted-Average Grant Date Fair Value
Outstanding at January 1, 2019	236,700	$ 26.21
Granted	58,178	$ 43.80
Vested	(85,504)	$ 19.05
Forfeited	(11,800)	$ 33.21
Outstanding at December 31, 2019	197,574	$ 33.98

The share-based compensation cost expensed for PSUs for the years ended December 31, 2019, 2018, and 2017 (before tax benefits) was $3.2 million, $1.9 million and $2.0 million, respectively, and is included in selling, general and administrative expenses on the consolidated income statements. At December 31, 2019, total unrecognized compensation cost (before tax benefits) related to PSUs of $3.2 million is expected to be recognized over a weighted-average period of 2.3 years. The total fair value of PSUs vested during the years ended December 31, 2019, 2018, and 2017, was $3.8 million, $0.3 million, and $1.2 million, respectively. The tax benefit realized from PSUs for the years ended December 31, 2019, 2018, and 2017 were $0.9 million, $0.1 million, and $0.5 million, respectively.

Note 12. Employee Benefit Plans

Supplemental Retirement Plans

We have three unfunded supplemental retirement plans. The first plan was suspended in 1986, but continues to cover certain former executives. The second plan was suspended in 1997, but continues to cover certain current and retired directors. The third plan covers certain current and retired employees and further employee contributions to this plan were suspended on August 5, 2011. The liability for the third plan and interest thereon is included in accrued employee compensation and long-term liabilities and was zero and $0.1 million, respectively, at December 31, 2019 and $0.7 million and $0.1 million, respectively, at December 31, 2018. The accumulated benefit obligations of the first two plans at December 31, 2019 and December 31, 2018 were $0.4 million and $0.6 million, respectively, and are included in accrued liabilities.

Defined Contribution 401(K) Plans

We sponsor a 401(k) defined contribution plan for all our employees. The plan allows the employees to make annual voluntary contributions not to exceed the lesser of an amount equal to 25% of their compensation or limits established by the Internal Revenue Code. Under this plan, we generally provide a match equal to 50% of the employee's contributions up to the first 6% of compensation, except for union employees who are not eligible to receive the match. Our provision for matching and profit sharing contributions for the three years ended December 31, 2019, 2018, and 2017 was $2.7 million, $2.6 million, and $2.7 million, respectively.

Other Plans

We have a defined benefit pension plan covering certain hourly employees of a subsidiary (the "Pension Plan"). Pension Plan benefits are generally determined on the basis of the retiree's age and length of service. Assets of the Pension Plan are composed primarily of fixed income and equity securities. We also have a retirement plan covering certain current and retired employees (the "LaBarge Retirement Plan"). As part of the acquisition of CTP, we acquired their defined benefit pension plan (the "CTP Pension Plan"), which covered certain current and retired employees that were fully funded by CTP as of the acquisition date in April 2018. The CTP Pension Plan was suspended as of the acquisition date but continued to cover certain current and former CTP employees. The CTP Pension Plan gross assets, liabilities, and current year expense were immaterial for disclosure purposes. The CTP Pension Plan was subsequently liquidated in November 2019 with no loss recorded as a pension plan escrow fund was established as part of the acquisition to cover any losses until it was liquidated.

The components of net periodic pension cost for the Pension Plan and LaBarge Retirement Plan in aggregate are as follows:

	(In thousands) Years Ended December 31,		
	2019	2018	2017
Service cost	$ 503	$ 601	$ 531
Interest cost	1,388	1,268	1,329
Expected return on plan assets	(1,644)	(1,784)	(1,530)
Amortization of actuarial losses	885	743	810
Net periodic pension cost	$ 1,132	$ 828	$ 1,140

The components of the reclassifications of net actuarial losses from accumulated other comprehensive loss to net income for 2019 were as follows:

	(In thousands) Year Ended December 31, 2019
Amortization of actuarial loss - total before tax (1)	$ 885
Tax benefit	(209)
Net of tax	$ 676

(1) The amortization expense is included in the computation of periodic pension cost and is a decrease to net income upon reclassification from accumulated other comprehensive loss.

The estimated net actuarial loss for both plans that will be amortized from accumulated other comprehensive loss into net periodic cost during 2020 is $0.9 million.

The obligations, fair value of plan assets, and funded status of both plans are as follows:

	(In thousands) December 31, 2019	2018
Change in benefit obligation[(1)]		
Beginning benefit obligation (January 1)	$ 33,951	$ 36,002
Service cost	503	601
Interest cost	1,388	1,268
Actuarial (gain) loss	4,769	(2,415)
Benefits paid	(1,526)	(1,505)
Ending benefit obligation (December 31)	$ 39,085	$ 33,951
Change in plan assets		
Beginning fair value of plan assets (January 1)	$ 23,749	$ 25,646
Return on assets	4,347	(1,951)
Employer contribution	1,873	1,559
Benefits paid	(1,526)	(1,505)
Ending fair value of plan assets (December 31)	$ 28,443	$ 23,749
Funded status (underfunded)	$ (10,642)	$ (10,202)
Amounts recognized in the consolidated balance sheet		
Current liabilities	$ —	$ 580
Non-current liabilities	$ 10,642	$ 9,622
Unrecognized loss included in accumulated other comprehensive loss		
Beginning unrecognized loss, before tax (January 1)	$ 9,485	$ 8,908
Amortization	(885)	(743)
Liability (gain) loss	4,769	(2,415)
Asset loss (gain)	(2,709)	3,735
Ending unrecognized loss, before tax (December 31)	10,660	9,485
Tax impact	(2,544)	(2,263)
Unrecognized loss included in accumulated other comprehensive loss, net of tax	$ 8,116	$ 7,222

(1) Projected benefit obligation equals the accumulated benefit obligation for the plans.

On December 31, 2019, our annual measurement date, the accumulated benefit obligation exceeded the fair value of the plans assets by $10.6 million. Such excess is referred to as an unfunded accumulated benefit obligation. We recorded unrecognized loss included in accumulated other comprehensive loss, net of tax at December 31, 2019 and 2018 of $8.1 million and $7.2 million, respectively, which decreased shareholders' equity. This charge to shareholders' equity represents a net loss not yet recognized as pension expense. This charge did not affect reported earnings, and would be decreased or be eliminated if either interest rates increase or market performance and plan returns improve which will cause the Pension Plan to return to fully funded status.

Our Pension Plan asset allocations at December 31, 2019 and 2018, by asset category, were as follows:

	December 31, 2019	2018
Equity securities	69%	57%
Cash and equivalents	1%	1%
Debt securities	30%	42%
Total[(1)]	100%	100%

(1) Our overall investment strategy is to achieve an asset allocation within the following ranges to achieve an appropriate rate of return relative to risk.

Cash	0-10%
Fixed income securities	15-75%
Equities	30-80%

Pension Plan assets consist primarily of listed stocks and bonds and do not include any of the Company's securities. The return on assets assumption reflects the average rate of return expected on funds invested or to be invested to provide for the benefits included in the projected benefit obligation. We select the return on asset assumption by considering our current and target asset allocation. We consider information from various external investment managers, forward-looking information regarding expected returns by asset class and our own judgment when determining the expected returns.

	(In thousands) Year Ended December 31, 2019			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$ 232	$ —	$ —	$ 232
Fixed income securities	3,247	—	—	3,247
Equities(1)	2,645	—	—	2,645
Other investments	1,552	—	—	1,552
Total plan assets at fair value	$ 7,676	$ —	$ —	7,676
Pooled funds				20,767
Total fair value of plan assets				$ 28,443

	(In thousands) Year Ended December 31, 2018			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$ 153	$ —	$ —	$ 153
Fixed income securities	3,647	—	—	3,647
Equities(1)	1,475	—	—	1,475
Other investments	851	—	—	851
Total plan assets at fair value	$ 6,126	$ —	$ —	6,126
Pooled funds				17,623
Total fair value of plan assets				$ 23,749

(1) Represents mutual funds and commingled accounts which invest primarily in equities, but may also hold fixed income securities, cash and other investments. Commingled funds with publicly quoted prices and actively traded are classified as Level 1 investments.

Pooled funds are measured using the net asset value ("NAV") as a practical expedient for fair value as permissible under the accounting standard for fair value measurements and have not been categorized in the fair value hierarchy in accordance with ASU 2015-07, "Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)." Pooled fund NAVs are provided by the trustee and are determined by reference to the fair value of the underlying securities of the trust, less its liabilities, which are valued primarily through the use of directly or indirectly observable inputs. Depending on the pooled fund, underlying securities may include marketable equity securities or fixed income securities.

The assumptions used to determine the benefit obligations and expense for our two plans are presented in the tables below. The expected long-term return on assets, noted below, represents an estimate of long-term returns on investment portfolios consisting of a mixture of fixed income and equity securities. The estimated cash flows from the plans for all future years are determined based on the plans' population at the measurement date. We used the expected benefit payouts from the plans for each year into the future and discounted them back to the present using the Wells Fargo yield curve rate for that duration.

The weighted-average assumptions used to determine the net periodic benefit costs under the two plans were as follows:

	Years Ended December 31,		
	2019	2018	2017
Discount rate used to determine pension expense			
Pension Plan	3.22%	3.64%	4.18%
LaBarge Retirement Plan	2.85%	3.40%	3.75%

The weighted-average assumptions used to determine the benefit obligations under the two plans were as follows:

	December 31,		
	2019	2018	2017
Discount rate used to determine value of obligations			
Pension Plan	4.23%	4.23%	3.64%
LaBarge Retirement Plan	4.00%	4.00%	3.40%
Long-term rate of return - Pension Plan only	7.00%	7.00%	7.00%

The following benefit payments under both plans, which reflect expected future service, as appropriate, are expected to be paid:

	(In thousands)	
	Pension Plan	LaBarge Retirement Plan
2020	$ 1,252	$ 589
2021	1,339	569
2022	1,452	545
2023	1,495	517
2024	1,607	486
2025 - 2029	9,002	2,012

Our funding policy is to contribute cash to our plans so that the minimum contribution requirements established by government funding and taxing authorities are met. We expect to make contributions of $0.9 million to the plans in 2020.

Note 13. Indemnifications

We have made guarantees and indemnities under which we may be required to make payments to a guaranteed or indemnified party, in relation to certain transactions, including revenue transactions in the ordinary course of business. In connection with certain performance center leases, we have indemnified our lessors for certain claims arising from the performance center or the lease. We indemnify our directors and officers to the maximum extent permitted under the laws of the State of Delaware.

However, we have a directors and officers insurance policy that may reduce our exposure in certain circumstances and may enable us to recover a portion of future amounts that may be payable, if any. The duration of the guarantees and indemnities varies and, in many cases is indefinite but subject to statute of limitations. The majority of guarantees and indemnities do not provide any limitations of the maximum potential future payments we could be obligated to make. Historically, payments related to these guarantees and indemnities have been immaterial. We estimate the fair value of our indemnification obligations as insignificant based on this history and insurance coverage and have, therefore, not recorded any liability for these guarantees and indemnities in the accompanying consolidated balance sheets.

Note 14. Income Taxes

Our pre-tax income attributable to foreign operations was not material. The provision for income tax (benefit) expense consisted of the following:

	(In thousands) Years Ended December 31,		
	2019	2018	2017
Current tax expense			
Federal	$ 5,802	$ 474	$ 2,387
State	1,067	1,260	525
	6,869	1,734	2,912
Deferred tax (benefit) expense			
Federal	(650)	(789)	(15,515)
State	(917)	291	135
	(1,567)	(498)	(15,380)
Income tax expense (benefit)	$ 5,302	$ 1,236	$ (12,468)

On December 22, 2017, the U. S. enacted the Tax Cuts and Jobs Act (the "2017 Tax Act") which, among a broad range of tax reform measures, reduced the U.S. corporate tax rate from 35.0% to 21.0% effective January 1, 2018. The reduction in the corporate tax rate required the federal portion of our deferred tax assets and liabilities at December 31, 2017 to be re-measured at the enacted tax rate expected to apply when the temporary differences are to be realized or settled using 21.0%. As a result, we recorded a provisional deferred income tax benefit of $13.0 million related to the re-measurement for the year ended December 31, 2017. SEC Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act" ("SAB 118"), allowed us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Since the 2017 Tax Act was passed late in the fourth quarter of 2017, and ongoing tax guidance and accounting interpretation were expected during 2018, we considered the accounting of the deferred tax re-measurement and other items to be incomplete as of December 31, 2017. Based on our review of proposed tax regulations and related guidance issued and available as of December 22, 2018, we determined that no refinements were needed to the tax positions and provisional amounts recorded in the fourth quarter of 2017 and finalized the accounting of the tax effects of the 2017 Tax Act as of December 31, 2018.

We recognized net income tax benefits from deductions of share-based payments in excess of compensation cost recognized for financial reporting purposes of $0.8 million, $0.2 million, and $0.6 million for the years ended December 31, 2019, 2018, and 2017, respectively.

Deferred tax (liabilities) assets were comprised of the following:

	(In thousands) December 31, 2019	2018
Deferred tax assets:		
Accrued expenses	$ 776	$ 704
Allowance for doubtful accounts	314	267
Contract overrun reserves	1,004	1,263
Deferred compensation	94	302
Employment-related accruals	5,049	4,252
Environmental reserves	494	479
Federal tax credit carryforwards	84	288
Inventory reserves	2,334	1,757
Pension obligation	2,552	2,324
Federal and state net operating loss carryforwards	6,251	51
State tax credit carryforwards	8,900	9,075
Stock-based compensation	1,672	1,661
Workers’ compensation	43	51
Other	1,409	1,538
Total gross deferred tax assets	30,976	24,012
Valuation allowance	(9,375)	(9,083)
Total gross deferred tax assets, net of valuation allowance	21,601	14,929
Deferred tax liabilities:		
Deferred revenue	(256)	(649)
Depreciation	(8,852)	(7,951)
Goodwill	(4,109)	(3,963)
Intangibles	(24,749)	(19,905)
Prepaid insurance	(346)	(223)
Total gross deferred tax liabilities	(38,312)	(32,691)
Net deferred tax liabilities	$ (16,711)	$ (17,762)

We have federal and state tax net operating losses of $22.5 million and $26.5 million, respectively, as of December 31, 2019. The federal net operating losses acquired from the acquisition of Nobles are subject to an annual limitation under Internal Revenue Code Section 382; however, we expect to fully realize them under ASC Subtopic 740-10 before they begin to expire in 2033. The state net operating loss carryforwards include $16.9 million that is not expected to be realized due to various limitations and has been reduced by a valuation allowance. If not realized, the state net operating loss carryforwards will begin to expire in 2027.

We have federal and state tax credit carryforwards of $0.1 million and $12.8 million, respectively, as of December 31, 2019. A valuation allowance of $10.7 million has been provided on state tax credit carryforwards that are not expected to be realized under ASC Subtopic 740-10. If not realized, the federal and state tax credit carryforwards will begin to expire in 2020.

We believe it is more likely than not that we will generate sufficient taxable income to realize the benefit of the remaining deferred tax assets.

The principal reasons for the variation between the statutory and effective tax rates were as follows:

	Years Ended December 31,		
	2019	2018	2017
Statutory federal income tax rate	21.0%	21.0%	35.0%
State income taxes (net of federal benefit)	3.6	5.3	2.5
Foreign derived intangible income deduction	(1.2)	—	—
Qualified domestic production activities	—	—	(2.6)
Stock-based compensation expense	(2.1)	(1.9)	(8.2)
Research and development tax credits	(7.8)	(32.0)	(50.6)
Other tax credits	—	(1.2)	(7.5)
Changes in valuation allowance	(1.6)	0.7	10.6
Non-deductible book expenses	3.9	8.2	1.1
Changes in deferred tax assets	(2.2)	12.1	15.4
Re-measurement of deferred taxes for 2017 Tax Act	—	—	(171.3)
Changes in tax reserves	1.2	1.2	11.4
Other	(0.8)	(1.4)	0.4
Effective income tax (benefit) rate	14.0%	12.0%	(163.8)%

As a result of the 2017 Tax Act, we began utilizing the enacted U.S. corporate rate of 21.0% for the tax year 2018 and beyond.

Our total amount of unrecognized tax benefits was $5.7 million, $5.3 million, and $5.3 million at December 31, 2019, 2018, and 2017, respectively. We record interest and penalty charge, if any, related to uncertain tax positions as a component of tax expense and unrecognized tax benefits. The amounts accrued for interest and penalty charges as of December 31, 2019, 2018, and 2017 were not significant. If recognized, $4.0 million would affect the effective income tax rate. As a result of statute of limitations set to expire in 2020, we expect decreases to our unrecognized tax benefits of approximately $2.0 million in the next twelve months.

A reconciliation of the beginning and ending amount of unrecognized tax benefits was as follows:

	(In thousands) Years Ended December 31,		
	2019	2018	2017
Balance at January 1,	$ 5,283	$ 5,271	$ 3,036
Additions for tax positions related to the current year	408	419	422
Additions for tax positions related to prior years	—	92	1,953
Reductions for tax positions related to prior years	(28)	(499)	(99)
Reductions for lapse of statute of limitations	—	—	(41)
Balance at December 31,	$ 5,663	$ 5,283	$ 5,271

We file U.S. Federal and state income tax returns. We are subject to examination by the Internal Revenue Service (“IRS”) for tax years after 2015 and by state taxing authorities for tax years after 2014. While we are no longer subject to examination prior to those periods, carryforwards generated prior to those periods may still be adjusted upon examination by the IRS or state taxing authorities if they either have been or will be used in a subsequent period. We believe we have adequately accrued for tax deficiencies or reductions in tax benefits, if any, that could result from the examination and all open audit years.

Note 15. Contingencies

Structural Systems has been directed by California environmental agencies to investigate and take corrective action for groundwater contamination at its facilities located in El Mirage and Monrovia, California. Based on currently available information, Ducommun has established an accrual for its estimated liability for such investigation and corrective action of $1.5 million at December 31, 2019, which is reflected in other long-term liabilities on its consolidated balance sheet.

Structural Systems also faces liability as a potentially responsible party for hazardous waste disposed at landfills located in Casmalia and West Covina, California. Structural Systems and other companies and government entities have entered into consent decrees with respect to these landfills with the United States Environmental Protection Agency and/or California environmental agencies under which certain investigation, remediation and maintenance activities are being performed. Based on currently available information, Ducommun preliminarily estimates that the range of its future liabilities in connection with the landfill located in West Covina, California is between $0.4 million and $3.1 million. Ducommun has established an accrual for its estimated liability in connection with the West Covina landfill of $0.4 million at December 31, 2019, which is reflected in other long-term liabilities on its consolidated balance sheet. Ducommun's ultimate liability in connection with these matters will depend upon a number of factors, including changes in existing laws and regulations, the design and cost of construction, operation and maintenance activities, and the allocation of liability among potentially responsible parties.

In the normal course of business, Ducommun and its subsidiaries are defendants in certain other litigation, claims and inquiries, including matters relating to environmental laws. In addition, Ducommun makes various commitments and incurs contingent liabilities. While it is not feasible to predict the outcome of these matters, Ducommun does not presently expect that any sum it may be required to pay in connection with these matters would have a material adverse effect on its consolidated financial position, results of operations or cash flows.

Note 16. Major Customers and Concentrations of Credit Risk

We provide proprietary products and services to the Department of Defense and various United States Government agencies, and most of the aerospace and aircraft manufacturers who receive contracts directly from the U.S. Government as an original equipment manufacturer ("Primes"). In addition, we also service technology-driven markets in the industrial, medical and other end-use markets. As a result, we have significant net revenues from certain customers. Accounts receivable were diversified over a number of different commercial, military and space programs and were made by both operating segments. Net revenues from our top ten customers, including The Boeing Company ("Boeing"), Lockheed Martin Corporation ("Lockheed Martin"), Raytheon Company ("Raytheon"), and Spirit AeroSystems Holdings, Inc. ("Spirit"), represented the following percentages of total net sales:

	Years Ended December 31,		
	2019	2018	2017
Boeing	16.6%	17.0%	16.3%
Lockheed Martin	4.0%	4.4%	5.5%
Raytheon	11.0%	11.7%	13.5%
Spirit	12.2%	9.5%	8.2%
Top ten customers (1)	63.5%	62.9%	62.5%

(1) Includes Boeing, Lockheed Martin, Raytheon, and Spirit.

Boeing, Lockheed Martin, Raytheon, and Spirit represented the following percentages of total accounts receivable:

	December 31,	
	2019	2018
Boeing	5.9%	8.0%
Lockheed Martin	0.8%	2.5%
Raytheon	3.3%	3.2%
Spirit	2.0%	—%

In 2019, 2018 and 2017, net revenues from foreign customers based on the location of the customer were $81.6 million, $71.9 million and $57.2 million, respectively. No net revenues from a foreign country were greater than 4.0% of total net revenues in 2019, 2018, and 2017. We have manufacturing facilities in Thailand and Mexico. Our net revenues, profitability and identifiable long-lived assets attributable to foreign revenues activity were not material compared to our net revenues, profitability and identifiable long-lived assets attributable to our domestic operations during 2019, 2018, and 2017. We are not subject to any significant foreign currency risks as all our sales are made in United States dollars.

Note 17. Business Segment Information

We supply products and services primarily to the aerospace and defense industries. Our subsidiaries are organized into two strategic businesses, Electronic Systems and Structural Systems, each of which is an operating segment as well as a reportable segment.

Financial information by reportable segment was as follows:

	(In thousands) Years Ended December 31,		
	2019	2018	2017
Net Revenues			
Electronic Systems	$ 360,373	$ 337,868	$ 316,723
Structural Systems	360,715	291,439	241,460
Total Net Revenues	$ 721,088	$ 629,307	$ 558,183
Segment Operating Income (Loss) (1)(2)(3)			
Electronic Systems	$ 38,613	$ 30,916	$ 31,236
Structural Systems	46,836	19,063	5,790
	85,449	49,979	37,026
Corporate General and Administrative Expenses (4)	(29,216)	(26,061)	(21,392)
Operating Income	$ 56,233	$ 23,918	$ 15,634
Depreciation and Amortization Expenses			
Electronic Systems	$ 14,170	$ 14,223	$ 13,888
Structural Systems	13,663	10,525	8,860
Corporate Administration	472	548	97
Total Depreciation and Amortization Expenses	$ 28,305	$ 25,296	$ 22,845
Capital Expenditures			
Electronic Systems	$ 5,508	$ 6,719	$ 5,019
Structural Systems	13,338	9,104	20,679
Corporate Administration	—	514	775
Total Capital Expenditures	$ 18,846	$ 16,337	$ 26,473

(1) The results for 2019 includes Nobles' results of operations which have been included in our consolidated statements of income since the date of acquisition as part of the Structural Systems segment. See Note 3.
(2) The results for 2018 includes CTP's results of operations which have been included in our consolidated statements of income since the date of acquisition as part of the Structural Systems segment. See Note 3.
(3) The results for 2017 includes LDS' results of operations which have been included in our consolidated statements of income since the date of acquisition as part of the Electronic Systems segment.
(4) Includes cost not allocated to either the Electronic Systems or Structural Systems operating segments.

Segment assets include assets directly identifiable with each segment. Corporate assets include assets not specifically identified with a business segment, including cash. The following table summarizes our segment assets for 2019 and 2018:

	(In thousands) December 31,	
	2019	2018
Total Assets		
Electronic Systems	$ 411,981	$ 405,743
Structural Systems	328,718	220,993
Corporate Administration	49,730	18,003
Total Assets	$ 790,429	$ 644,739
Goodwill and Intangibles		
Electronic Systems	$ 210,453	$ 219,872
Structural Systems	98,826	28,277
Total Goodwill and Intangibles	$ 309,279	$ 248,149

On October 8, 2019, we acquired 100.0% of the outstanding equity interests of Nobles for a purchase price of $77.0 million, net of cash acquired. We allocated the gross purchase price of $77.3 million to the assets acquired and liabilities assumed at preliminary estimated fair values. The excess of the purchase price over the aggregate fair values of the net assets was recorded as goodwill. See Note 3.

In April 2018, we acquired 100.0% of the outstanding equity interests of CTP for a purchase price of $30.7 million, net of cash acquired. We allocated the gross purchase price of $30.8 million to the assets acquired and liabilities assumed at estimated fair values. The excess of the purchase price over the aggregate fair values of the net assets was recorded as goodwill. See Note 3.

In September 2017, we acquired 100.0% of the outstanding equity interests of LDS for a purchase price of $60.0 million, net of cash acquired. We allocated the gross purchase price of $62.0 million to the assets acquired and liabilities assumed at estimated fair values. The excess of the purchase over the aggregate fair values was recorded as goodwill.

Note 18. Supplemental Quarterly Financial Data (Unaudited)

	(In thousands, except per share amounts)							
	Three Months Ended 2019				Three Months Ended 2018			
	Dec 31	Sep 28	Jun 29	Mar 30	Dec 31	Sep 29	Jun 30	Mar 31
Net Revenues	$ 186,926	$ 181,101	$ 180,495	$ 172,566	$ 164,183	$ 159,842	$ 154,827	$ 150,455
Gross Profit	40,111	38,327	38,065	35,694	32,697	31,116	32,028	26,755
Income Before Taxes	9,848	10,240	9,178	8,497	1,791	4,290	1,833	2,357
Income Tax Expense (Benefit)	977	1,937	1,363	1,025	1,118	119	242	(243)
Net Income	$ 8,871	$ 8,303	$ 7,815	$ 7,472	$ 673	$ 4,171	$ 1,591	$ 2,600
Earnings Per Share								
Basic earnings per share	$ 0.77	$ 0.72	$ 0.68	$ 0.65	$ 0.06	$ 0.37	$ 0.14	$ 0.23
Diluted earnings per share	$ 0.75	$ 0.70	$ 0.66	$ 0.64	$ 0.06	$ 0.36	$ 0.14	$ 0.22

In the fourth quarter of 2019, we acquired 100.0% of the outstanding equity interests of Nobles and Nobles' results of operations have been included in our consolidated statements of income since the date of acquisition as part of the Structural Systems segment. See Note 3.

In the fourth quarter of 2018, we recorded restructuring charges of $3.8 million as part of a restructuring plan that commenced during the fourth quarter of 2017. See Note 4.

In the third quarter of 2018, we recorded restructuring charges of $3.4 million as part of a restructuring plan that commenced during the fourth quarter of 2017. See Note 4.

In the second quarter of 2018, we acquired 100.0% of the outstanding equity interests of CTP and CTP's results of operations have been included in our consolidated statements of income since the date of acquisition as part of the Structural Systems segment. See Note 3. In addition, we recorded restructuring charges of $5.4 million as part of a restructuring plan that commenced during the fourth quarter of 2017. See Note 4.

In the first quarter of 2018, we recorded restructuring charges of $2.2 million as part of a restructuring plan that commenced during the fourth quarter of 2017. See Note 4.

DUCOMMUN INCORPORATED AND SUBSIDIARIES

CONSOLIDATED VALUATION AND QUALIFYING ACCOUNTS

YEARS ENDED DECEMBER 31, 2019, 2018, AND 2017

(Dollars in thousands)

SCHEDULE II

Description	Balance at Beginning of Period	Charged to (Reduction of) Costs and Expenses	Deductions/(Recoveries)	Other[(1)]	Balance at End of Period
2019					
Allowance for Doubtful Accounts	$ 1,135	$ 219	$ 33	$ —	$ 1,321
Valuation Allowance on Deferred Tax Assets	$ 9,083	$ (593)	$ —	$ 885	$ 9,375
2018					
Allowance for Doubtful Accounts	$ 868	$ 776	$ 509	$ —	$ 1,135
Valuation Allowance on Deferred Tax Assets	$ 9,013	$ 70	$ —	$ —	$ 9,083
2017					
Allowance for Doubtful Accounts	$ 495	$ 334	$ (39)	$ —	$ 868
Valuation Allowance on Deferred Tax Assets	$ 6,607	$ 2,406	$ —	$ —	$ 9,013

(1) Includes opening balances of Nobles Worldwide, Inc. acquired in October 2019.

EXHIBIT INDEX

Exhibit
No. **Description**

2.1 Agreement and Plan of Merger, dated as of April 3, 2011, among Ducommun Incorporated, DLBMS, Inc. and LaBarge, Inc. Incorporated by reference to Exhibit 2.1 to Form 8-K filed on April 5, 2011.

2.2 Agreement and Plan of Merger, dated as of September 11, 2017, among Ducommun LaBarge Technologies, Inc., LS Holdings Company LLC, and DLS Company LLC. Incorporated by reference to Exhibit 2.1 to Form 8-K filed on September 11, 2017.

2.3 Agreement and Plan of Merger, dated as of October 8, 2019, among Ducommun LaBarge Technologies, Inc., DLT Acquisition, Inc., Nobles Parent Inc., and the Stockholder Representative. Incorporated by reference to Exhibit 2.1 to Form 8-K filed on October 9, 2019.

2.4 Stock Purchase Agreement dated January 22, 2016, by and among Ducommun Incorporated, Ducommun LaBarge Technologies, Inc., as Seller, LaBarge Electronics, Inc., and Intervala, LLC, as Buyer. Incorporated by reference to Exhibit 2.1 to Form 8-K dated January 25, 2016.

2.5 Stock Purchase Agreement dated February 24, 2016, by and between Ducommun LaBarge Technologies, Inc., as Seller, and General Atomics, as Buyer. Incorporated by reference to Exhibit 2.1 to Form 8-K dated February 24, 2016.

3.1 Restated Certificate of Incorporation filed with the Delaware Secretary of State on May 29, 1990. Incorporated by reference to Exhibit 3.1 to Form 10-K for the year ended December 31, 1990.

3.2 Certificate of Amendment of Certificate of Incorporation filed with the Delaware Secretary of State on May 27, 1998. Incorporated by reference to Exhibit 3.2 to Form 10-K for the year ended December 31, 1998.

3.3 Bylaws as amended and restated on March 19, 2013. Incorporated by reference to Exhibit 99.1 to Form 8-K dated March 22, 2013.

3.4 Amendment to Bylaws dated January 5, 2017. Incorporated by reference to Exhibit 99.2 to Form 8-K dated January 9, 2017.

3.5 Amendment to Bylaws dated February 21, 2018. Incorporated by reference to Exhibit 3.1 to Form 8-K dated February 26, 2018.

4.1 Description of Ducommun Incorporated Securities Registered under Section 12 of the Exchange Act.

10.1 Incremental Term Loan Lender Joinder Agreement and Additional Credit Extension Amendment, dated as of December 20, 2019, by and among Ducommun Incorporated, as Borrower, the subsidiaries of the Borrower party thereto, as Guarantors, Bank of America, N.A., as Administrative Agent, Swingline Lender and an L/C Issuer, and the lender party thereto. Incorporated by reference to Exhibit 10.1 to Form 8-K filed on December 20, 2019.

10.2 Credit Agreement, dated as of November 21, 2018, among Ducommun Incorporated, certain of its subsidiaries, Bank of America, N.A., as administrative agent, swingline lender and issuing bank, and other lenders party thereto. Incorporated by reference to Exhibit 10.1 to Form 8-K filed on November 26, 2018.

*10.3 2007 Stock Incentive Plan. Incorporated by reference to Appendix B of Definitive Proxy Statement on Schedule 14a, filed on March 29, 2010.

*10.4 2013 Stock Incentive Plan (Amended and Restated March 18, 2015). Incorporated by reference to Appendix B of Definitive Proxy Statement on Schedule 14a, filed on April 22, 2015.

*10.5 2013 Stock Incentive Plan (Amended and Restated May 2, 2018). Incorporated by reference to Appendix A of Definitive Proxy Statement on Schedule 14a, filed on March 23, 2018.

*10.6 2018 Employee Stock Purchase Plan. Incorporated by reference to Appendix B of Definitive Proxy Statement on Schedule 14a, filed on March 23, 2018.

*10.7 Form of Stock Option Agreement for 2016 and earlier. Incorporated by reference to Exhibit 10.8 to Form 10-K for the year ended December 31, 2003.

*10.8 Form of Stock Option Agreement for 2017. Incorporated by reference to Exhibit 10.5 to Form 10-K for the year ended December 31, 2016.

*10.9 Form of Stock Option Agreement for 2018 and after. Incorporated by reference to Exhibit 4.7 to Form S-8 filed on May 10, 2018.

Exhibit No.	Description
*10.10	Form of Performance Stock Unit Agreement for 2014 and 2015. Incorporated by reference to Exhibit 10.19 to Form 10-Q for the period ended March 29, 2014.
*10.11	Form of Performance Stock Unit Agreement for 2016. Incorporated by reference to Exhibit 10.6 to Form 10-Q for the period ended April 2, 2016.
*10.12	Form of Performance Stock Unit Agreement for 2017. Incorporated by reference to Exhibit 10.21 to Form 10-Q for the period ended April 1, 2017.
*10.13	Form of Restricted Stock Unit Agreement for 2016 and earlier. Incorporated by reference to Exhibit 99.1 to Form 8-K filed on May 8, 2007.
*10.14	Form of Restricted Stock Unit Agreement for 2017 and after. Incorporated by reference to Exhibit 10.9 to Form 10-K for the year ended December 31, 2016.
*10.15	Form of Directors' Restricted Stock Unit Agreement. Incorporated by reference to Exhibit 99.1 to Form 8-K filed on May 10, 2010.
*10.16	Performance Restricted Stock Unit Agreement dated January 23, 2017 between Ducommun Incorporated and Stephen G. Oswald. Incorporated by reference to Exhibit 10.11 to Form 10-K for the year ended December 31, 2016.
*10.17	Form of Indemnity Agreement entered with all directors and officers of Ducommun. Incorporated by reference to Exhibit 10.8 to Form 10-K for the year ended December 31, 1990. All of the Indemnity Agreements are identical except for the name of the director or officer and the date of the Agreement:

Director/Officer	Date of Agreement
Richard A. Baldridge	March 19, 2013
Gregory S. Churchill	March 19, 2013
Shirley G. Drazba	October 18, 2018
Robert C. Ducommun	December 31, 1985
Dean M. Flatt	November 5, 2009
Jay L. Haberland	February 2, 2009
Stephen G. Oswald	January 23, 2017
Robert D. Paulson	March 25, 2003
Jerry L. Redondo	October 1, 2015
Rosalie F. Rogers	July 24, 2008
Rajiv A. Tata	January 24, 2020
Christopher D. Wampler	January 1, 2016

Exhibit No.	Description
*10.18	Ducommun Incorporated 2016 Bonus Plan. Incorporated by reference to Exhibit 99.3 to Form 8-K dated March 1, 2016.
*10.19	Ducommun Incorporated 2017 Bonus Plan. Incorporated by reference to Exhibit 99.1 to Form 8-K dated February 27, 2017.
*10.20	Directors' Deferred Compensation and Retirement Plan, as amended and restated February 2, 2010. Incorporated by reference to Exhibit 10.15 to Form 10-K for the year ended December 31, 2009.
*10.21	Non Qualified Deferred Compensation. Incorporated by reference to Exhibit 4.6 to Form S-8 dated November 26, 2019.
*10.22	Key Executive Severance Agreement between Ducommun Incorporated and Stephen G. Oswald dated January 23, 2017. Incorporated by reference to Exhibit 99.1 to Form 8-K dated January 27, 2017.

Exhibit
No. **Description**

*10.23 Form of Key Executive Severance Agreement between Ducommun Incorporated and each of the individuals listed below. Incorporated by reference to Exhibit 99.2 to Form 8-K dated January 27, 2017. All of the Key Executive Severance Agreements are identical except for the name of the person, the address for notice, and the date of the Agreement:

Person	Date of Agreement
Jerry L. Redondo	January 23, 2017
Rosalie F. Rogers	January 23, 2017
Rajiv A. Tata	January 24, 2020
Christopher D. Wampler	January 23, 2017

*10.24 Employment Letter Agreement dated January 3, 2017 between Ducommun Incorporated and Stephen G. Oswald. Incorporated by reference to Exhibit 99.1 to Form 8-K dated January 9, 2017.

*10.25 Employment Letter Agreement dated December 19, 2016 between Ducommun Incorporated and Amy M. Paul. Incorporated by reference to Exhibit 10.19 to Form 10-K for the year ended December 31, 2016.

*10.26 Transition Services Letter Agreement dated January 10, 2017 between Ducommun Incorporated and James S. Heiser. Incorporated by reference to Exhibit 99.1 to Form 8-K filed on January 17, 2017.

*10.27 Separation and Release Agreement dated May 14, 2018 between Ducommun Incorporated and Amy M. Paul. Incorporated by reference to Exhibit 10.1 to Form 8-K filed on May 23, 2018.

*10.28 Separation and Release Agreement dated June 26, 2019 between Ducommun Incorporated and Douglas L. Groves. Incorporated by reference to Exhibit 10.1 to Form 8-K filed on June 28, 2019.

21 Subsidiaries of the registrant.

23 Consent of Independent Registered Public Accounting Firm.

31.1 Certification of Principal Executive Officer.

31.2 Certification of Principal Financial Officer.

32 Certification 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

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* Indicates an executive compensation plan or arrangement.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

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

		DUCOMMUN INCORPORATED
Date: February 20, 2020	By:	/s/ Stephen G. Oswald
		Stephen G. Oswald
		Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities and Exchange Act of 1934, this report has been duly signed below by the following persons on behalf of the registrant and in the capacities indicated on February 20, 2020.

Signature	Title
/s/ Stephen G. Oswald Stephen G. Oswald	Chairman, President and Chief Executive Officer (Principal Executive Officer)
/s/ Christopher D. Wampler Christopher D. Wampler	Vice President, Interim Chief Financial Officer and Treasurer, and Controller and Chief Accounting Officer (Principal Financial and Principal Accounting Officer)
/s/ Richard A. Baldridge Richard A. Baldridge	Director
/s/ Gregory S. Churchill Gregory S. Churchill	Director
/s/ Shirley G. Drazba Shirley G. Drazba	Director
/s/ Robert C. Ducommun Robert C. Ducommun	Director
/s/ Dean M. Flatt Dean M. Flatt	Director
/s/ Jay L. Haberland Jay L. Haberland	Director
/s/ Robert D. Paulson Robert D. Paulson	Director

DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES AND EXCHANGE ACT OF 1934

*The following summary of Ducommun's common stock is based on and qualified by the Company's Amended Certificate of Incorporation. For a complete description of the terms and provisions of the Company's equity securities, including its common stock, please refer to the Company's Amended Certificate of Incorporation (the "**Charter**") and Amended Bylaws (the "**Bylaws**"), which are filed as Exhibits 3.1, 3.2, 3.3, 3.4 and 3.5 to our Annual Report on Form 10-K for the year ended December 31, 2019, of which this Exhibit 4.1 is a part. References to "**Ducommun**" or the "**Company**" herein are only to Ducommun Incorporated and not to any of its subsidiaries.*

Description of Capital Stock

Our authorized capital stock consists of 35,000,000 shares of common stock, par value $.01 per share, and 5,000,000 shares of preferred stock, par value $.01 per share. As of February 7, 2020, 11,606,827 shares of common stock and no shares of preferred stock were outstanding.

Common Stock

Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. The vote of the holders of a majority of the stock represented at a meeting at which a quorum is present is generally required to take stockholder action, unless a greater vote is required by law. The holders are entitled to cumulative voting in the election of directors. Directors are elected by plurality vote. The existence of a classified board along with cumulative voting may make it more difficult for a stockholder owning a significant amount of the Company's common stock to effect a change in the majority of the board than would be the case if cumulative voting did not exist.

Holders of common stock have no preemptive rights. They are entitled to such dividends as may be declared by our board of directors out of funds legally available for such purpose. The common stock is not entitled to any sinking fund, redemption or conversion provisions. On our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in our net assets remaining after the payment of all creditors and liquidation preferences of preferred stock, if any. The outstanding shares of common stock are duly authorized, validly issued, fully paid and non-assessable.

The transfer agent and registrar for the common stock is Computershare Limited.

The following provisions in our charter or bylaws may make a takeover of our Company more difficult:

- a provision in our Charter that our Bylaws may not be amended by our stockholders except by the affirmative vote of at least 75% of the total voting power of all outstanding shares of our voting stock;
- a provision in our Charter that requires the affirmative vote of at least 75% of the total voting power of all outstanding shares of our voting stock to amend the provisions of our charter relating to our classified board, stockholders' ability to only act at a meeting, cumulative voting and the approval of certain transactions;

- a provision in our Charter that our board of directors will be a classified board pursuant to which one-third of our directors will be elected each year to serve for a three-year term;
- a provision in our Charter prohibiting stockholder action by written consent;
- a provision in our Charter requiring that any proposal for (i) the merger or consolidation of our Company and another company that owns (together with its affiliates), directly or indirectly, 10% of more of our outstanding shares of common stock (a "significant stockholder"), or (ii) our sale to a significant stockholder of substantially all of our assets or business, be approved by the affirmative vote of at least 75% of the total voting power of all outstanding shares of our stock, unless (a) our board of directors approved the merger, consolidation or sale prior to the other company's acquisition of 10% of our outstanding shares or (b) we own 50% or more of the other company;
- a provision in our Bylaws limiting the persons who may call special meetings of stockholders to our board of directors; and
- provisions in our Bylaws establishing an advance written notice procedure for stockholders seeking to nominate candidates for election to the board of directors or for proposing matters which can be acted upon at stockholders' meetings.

These provisions may delay stockholder actions with respect to business combinations and the election of new members to our board of directors. As such, the provisions could discourage open market purchases of our common stock because a stockholder who desires to participate in a business combination or elect a new director may consider them disadvantageous. Additionally, the issuance of preferred stock could delay or prevent a change of control or other corporate action.

Delaware Anti-Takeover Statute. As a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. In general, Section 203 prevents an "interested stockholder" from engaging in a "business combination" with us for three years following the date that person became an interested stockholder, unless:

- before that person became an interested stockholder, our board of directors approved the transaction in which the interested stockholder became an interested stockholder or approved the business combination;
- upon completion of the transaction that resulted in the interested stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding stock held by persons who are both directors and officers of our corporation and by certain employee stock plans; or
- on or following the date on which that person became an interested stockholder, the business combination is approved by our board of directors and authorized at a meeting of stockholders by the affirmative vote of the holders of at least 66 2/3% of our outstanding voting stock excluding shares held by the interested stockholder.

An "interested stockholder" is generally a person owning 15% or more of our outstanding voting stock. A "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder.

Preferred Stock

We may issue preferred stock in series with any rights and preferences that may be authorized by our board of directors. In such event, we would distribute a prospectus supplement with regard to each particular series of preferred stock. Each prospectus supplement would describe, as to the series of preferred stock to which it relates:

- the title of the series of preferred stock;
- any limit upon the number of shares of the series of preferred stock that may be issued;

- the preference, if any, to which holders of the series of preferred stock would be entitled upon our liquidation;
- the date or dates on which we will be required or permitted to redeem the preferred stock;
- the terms, if any, on which we or holders of the preferred stock would have the option to cause the preferred stock to be redeemed or purchased;
- the voting rights, if any, of the holders of the preferred stock;
- the dividends, if any, that would be payable with regard to the series of preferred stock, which could be fixed dividends or participating dividends and could be cumulative or non-cumulative;
- the right, if any, of holders of the preferred stock to convert it into another class of our stock or securities, including provisions intended to prevent dilution of those conversion rights;
- any provisions by which we would be required or permitted to make payments to a sinking fund to be used to redeem preferred stock or a purchase fund to be used to purchase preferred stock; and
- any other material terms of the preferred stock.

Holders of shares of preferred stock would not have preemptive rights.

EXHIBIT 21

SUBSIDIARIES OF THE REGISTRANT

Following is a list of the subsidiaries of the Company[1]:

Name of Subsidiary	Jurisdiction of Incorporation
Certified Thermoplastics Company, LLC	Delaware
CMP Display Systems, Inc.[2]	California
Composite Structures, LLC	Delaware
Ducommun AeroStructures, Inc.	Delaware
Ducommun AeroStructures Mexico, LLC	Delaware
Ducommun AeroStructures New York, Inc.	New York
Ducommun (England) LTD	England
Ducommun LaBarge Technologies, Inc.	Arizona
Ducommun LaBarge Technologies, Inc.	Delaware
Ducommun Technologies (Thailand) Ltd.	Thailand
LaBarge Acquisition Company, Inc.	Missouri
LaBarge/STC, Inc.[2]	Texas
Lightning Diversion Systems, LLC	Delaware
LS Holdings Company, LLC	Delaware
Nobles Holdings Inc.	Delaware
Nobles Parent Inc.	Delaware
Nobles Worldwide, Inc.	Minnesota

(1) As of December 31, 2019.
(2) Inactive.

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-234808) and Form S-8 (Nos. 333-235278, 333-224838, 333-214408, and 333-188460) of Ducommun Incorporated of our report dated February 20, 2020 relating to the consolidated financial statements, consolidated financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Irvine, California
February 20, 2020

EXHIBIT 31.1

Certification of Principal Executive Officer
Pursuant to Section 302 of the
Sarbanes-Oxley Act of 2002

I, Stephen G. Oswald, certify that:

1. I have reviewed this Annual Report of Ducommun Incorporated (the “registrant”) on Form 10-K for the period ended December 31, 2019;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 20, 2020

/s/ Stephen G. Oswald

Stephen G. Oswald
Chairman, President and Chief Executive Officer

EXHIBIT 31.2

Certification of Principal Financial Officer
Pursuant to Section 302 of the
Sarbanes-Oxley Act of 2002

I, Christopher D. Wampler, certify that:

1. I have reviewed this Annual Report of Ducommun Incorporated (the “registrant”) on Form 10-K for the period ended December 31, 2019;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 20, 2020

/s/ Christopher D. Wampler

Christopher D. Wampler

Vice President, Interim Chief Financial Officer and
Treasurer, and Controller and Chief Accounting Officer

Certification Pursuant to
18 U.S.C. Section 1350,
as Adopted Pursuant to Section 906 of
the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Ducommun Incorporated (the “Company”) on Form 10-K for the period ending December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Stephen G. Oswald, Chairman, President and Chief Executive Officer of the Company, certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Stephen G. Oswald
Stephen G. Oswald
Chairman, President and Chief Executive Officer
February 20, 2020

In connection with the Annual Report of Ducommun Incorporated (the “Company”) on Form 10-K for the period ending December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Christopher D. Wampler, Vice President, Interim Chief Financial Officer and Treasurer, and Controller and Chief Accounting Officer of the Company, certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Christopher D. Wampler
Christopher D. Wampler
Vice President, Interim Chief Financial Officer and Treasurer, and Controller and Chief Accounting Officer
February 20, 2020

The foregoing certification is accompanying the Form 10-K solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and is not being filed as part of the Form 10-K or as a separate disclosure document.