UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 6, 2020

ASTRONICS CORPORATION

(Exact name of registrant as specified in its charter)

New York	0-7087	16-0959303
(State of Other Jurisdiction of Incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)
130 Commerce East Aurora, New		14052
(Address of principal exec	utive offices)	(Zip Code)
Registrant's	telephone number, including are	ea code: (716) 805-1599
Securities	registered pursuant to Section 1	2(b) of the Act: None
Securities	registered pursuant to Section 12	e(g) of the Act:
Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, \$.01 par value per share	ATRO	NASDAQ Stock Market
Check the appropriate box below if the Form 8-K filir the following provisions:	ng is intended to simultaneously	satisfy the filing obligation of the registrant under any of
[] Written communications pursuant to Rule 425 und	er the Securities Act (17 CFR 23	30.425)
[] Soliciting material pursuant to Rule 14a-12 under t	the Exchange Act (17 CFR 240.1	4a-12)
[] Pre-commencement communications pursuant to R	` /	
[] Pre-commencement communications pursuant to R	Rule 13e-4(c) under the Exchang	e Act (17 CFR 240.13e-4(c))
Indicate by check mark whether the registrant is an en of this chapter) or Rule 12b-2 of the Securities Exchan [] Emerging growth company		ned in Rule 405 of the Securities Act of 1933 (§230.405 this chapter).
If an emerging growth company, indicate by check may with any new or revised financial accounting standard	e e	not to use the extended transition period for complying (3(a) of the Exchange Act. []

Item 2.02 Results of Operations and Financial Condition.

On May 6, 2020, Astronics Corporation issued a news release announcing its first quarter financial results for 2020. A copy of the press release is attached as Exhibit 99.1.

The information contained herein and in the accompanying exhibit shall not be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing. The information in this report including the exhibit hereto, shall not be deemed to be "filed" for purpose of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended.

Item 9.01 Financial Statements and Exhibits.

Press Release of Ast	ronics Corporation	dated	May 6	6, 2020
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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Astronics Corporation

Dated: May 6, 2020 By: <u>/s/ David C. Burney</u>
Name: David C. Burney

Executive Vice President and Chief Financial Officer

EXHIBIT INDEX

<u>Exhibit</u> <u>Description</u>

99.1 Press Release of Astronics Corporation dated May 6, 2020



NEWS RELEASE

Astronics Corporation • 130 Commerce Way • East Aurora, NY • 14052-2164

For more information, contact:

Company:

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FOR IMMEDIATE RELEASE

Astronics Corporation Reports 2020 First Quarter Financial Results

- Sales for the quarter were \$157.6 million with bookings of \$167.4 million
- Net loss was (\$67.0) million, after impairment charges of \$74.4 million
 - Adjusted EBITDA* was \$16.2 million or 10.3% of sales
- Amended credit facility suspends leverage covenant and accommodates for challenging environment
- Restructuring to allow cash positive performance if sales decline as much as 35% from 2019

*Adjusted EBITDA is a Non-GAAP Performance Measure. Please see the attached table for a reconciliation of adjusted EBITDA to GAAP net income

EAST AURORA, NY, May 6, 2020 – Astronics Corporation (Nasdaq: ATRO) ("Astronics" or the "Company"), a leading supplier of advanced technologies and products to the global aerospace, defense and other mission critical industries, today reported financial results for the three months ended March 28, 2020. Financial results reflect the divestiture of the Test Systems' semiconductor business on February 13, 2019, and the acquisitions of Freedom Communications Technologies ("Freedom"), acquired in July 2019, and the primary operating subsidiaries of Diagnosys Test Systems Limited ("Diagnosys"), acquired in October 2019 (collectively, the "Acquired Businesses").

Summary of COVID-19's Impact on Astronics and Our Operational Adjustments

Like many companies in the aerospace industry, Astronics has been significantly affected by the COVID-19 pandemic. In the space of a few weeks, the Company saw significant changes in expected demand as airline traffic bottomed and manufacturers announced reduced production rates.

Astronics rapidly adjusted to the changed environment by prioritizing the health and safety of its employees and implementing a new set of work rules to provide for sanitation, hygiene and physical distancing. Concurrently, Astronics aggressively adjusted its cost structure to match expected demand and conserve cash. These actions included a 30% reduction in employee count to about 2,000, a freeze on wages and the elimination of cash bonus plans, a more than 50% reduction of 2020 capital expenditures, and other measures such as elimination of temporary labor and consultants wherever possible, and restrictions on marketing, trade shows, travel and discretionary spending for the remainder of the year. These actions will result in significant savings of \$55 million to \$60 million for the year, beginning in the second guarter.

The Company has reviewed its business prospects with a broad range of customers and partners to assess potential outcomes of demand for its products. The defense and government business appears strong, but aircraft build rates are expected to drop and the airline aftermarket is expected to weaken considerably. Given these market conditions, the Company has reduced costs and expects to be cash flow positive even with a decline in sales between 30% and 35% from 2019's total revenue of \$773 million.

In terms of liquidity, in March the Company drew down \$150 million on its existing revolver, ending the quarter with total cash of \$188 million. Astronics has subsequently amended its lending facility with its banks such that its maximum leverage covenant is temporarily suspended until the second quarter of 2021, replaced by an interest coverage covenant and a minimum liquidity covenant.

First quarter revenue was \$157.6 million with a net loss of \$67.0 million. The loss was driven by a \$74.4 million pre-tax write-down of goodwill and other intangibles which resulted from a reduced outlook in the aerospace segment. Adjusted EBITDA* in the first quarter was \$16.2 million, or 10.3% of sales.

*Adjusted EBITDA is a Non-GAAP Performance Measure. Please see the attached table for a reconciliation of adjusted EBITDA to GAAP net income

Peter J. Gundermann stated, "We have taken significant action to adjust to the evolving environment. Our team has responded very effectively to the situation and our operations continue to perform well given the challenging conditions. The situation is far from settled, but if our revenue in 2020 were to drop on the order of 30% to 35% from 2019, the changes we have made should allow us to stay cash positive and produce EBITDA levels of 5% to 9% of sales."

Analysis of Impact on Demand by Markets

The Company evaluated the demand from three market drivers to analyze the potential impact to its business. The three revenue streams are (1) defense and other government markets, (2) new airplane production or OE demand, and (3) the aftermarket for commercial transport aircraft.

Approximately 20% of Astronics' sales in 2019 were to the defense or other government markets, including the majority of the Test business and certain military aircraft programs. Demand in these areas has not been affected to date by the pandemic and shows significant strength.

An estimated 55% of sales in 2019 were driven by the production of new airplanes in the commercial transport and business jet markets. For Astronics, the commercial transport market is the more significant of the two. Major manufacturers in both markets have revised their production plans downward for the near future, typically on the order of 30% to 35%, which directly impacts expected sales.

The remaining 25% of sales in 2019 were to the aftermarket for commercial transport aircraft, primarily for inflight entertainment and passenger power systems ("IFE") sold to airlines and aircraft leasing companies. With the severe decline in airline traffic due to COVID-19, the Company expects that aftermarket IFE sales will be down substantially in 2020.

Evaluating the demand from these markets, and considering first quarter actual results, Astronics expects a significant decline in sales in 2020 and has restructured the business to be cash flow positive even if sales were to decline between 30% to 35% from sales of \$773 million in 2019.

Mr. Gundermann noted, "We cannot know exactly how the COVID-19 pandemic will impact the commercial transport market, but we are prepared to take additional measures as required to achieve our objective of, at a minimum, cash breakeven results. Likewise, should there be a recovery, we will be in a position to timely deliver our products."

Liquidity and Financing

In March, Astronics drew down \$150 million on its revolver and had \$188 million of cash at the end of the first quarter. On May 4, 2020, the Company executed an amended credit agreement that suspended its maximum leverage coverage covenant effective with the second quarter of 2020 through the second quarter of 2021 and will reinstitute a leverage covenant beginning in the third quarter of 2021 of 6.0 to 1.0, which declines by 50 basis points in the fourth quarter. Temporary covenants through the second quarter of 2021 include a minimum liquidity requirement of cash plus the unused revolving credit facility of \$180 million and a minimum interest coverage ratio of 1.75x measured quarterly, with an exception for the first quarter of 2021 for which the interest coverage ratio is 1.5x. Under the amended agreement, Astronics has mandatory repayments when Astronics' cash level exceeds \$100 million. The revolving credit facility was reduced to \$375 million from \$500 million. Additionally, there are temporary limits on share repurchases and acquisitions.

The Company believes that its revised lending agreement, along with the actions it has taken, positions it well to operate through the COVID-19 pandemic.

2020 Outlook

As discussed above, the Company believes revenue could drop 30% to 35% from 2019, although other outcomes are possible. Management believes it has structured the Company to be cash positive at this level, with adjusted EBITDA in the range of 5% to 9%.

Capital expenditures for 2020 are expected to be approximately \$8 million, reduced from initial plans of \$20 million to \$25 million for the year. The reduction reflects the change in tooling and equipment capacity requirements for certain programs that were either postponed or cancelled, as well as the deferral or cancelation of discretionary investments.

Mr. Gundermann commented, "Our environment has changed dramatically since the beginning of March and we have taken a number of actions in response. We know things will continue to evolve and we will keep diligent watch, ready to make additional adjustments and changes as necessary. Our team has demonstrated an impressive discipline and willingness to act in the face of the COVID-19 threat, and I'm confident we will succeed in the end."

First Quarter Results

	Three Months Ended					
(\$ in thousands) Sales		March 28, 2020		March 30, 2019	% Change	
	\$	157,584	\$	208,174	(24.3)%	
(Loss) Income from Operations	\$	(67,556)	\$	22,881	(395.2)%	
Operating Margin %		(42.9)%		11.0 %		
Net Gain on Sale of Business	\$	_	\$	80,133		
Net (Loss) Income	\$	(66,963)	\$	78,146	(185.7)%	
Net Income %		(42.5)%		37.5 %		
*Adjusted EBITDA	\$	16,245	\$	31,935	(49.1)%	
*Adjusted EBITDA Margin %		10.3 %		15.3 %		

^{*}Adjusted EBITDA is a Non-GAAP Performance Measure. Please see the attached table for a reconciliation of adjusted EBITDA to GAAP net income

First Quarter 2020 Results (compared with the prior-year period, unless noted otherwise)

Consolidated sales were down \$50.6 million compared with the first quarter of 2019, which was the third highest revenue quarter in the Company's history. Aerospace sales were down \$47.4 million. Test System sales decreased \$3.2 million. Acquisitions contributed \$3.5 million in sales in the first quarter of 2020. Semiconductor sales were down \$1.7 million, as that business was divested in February 2019.

Consolidated operating loss was \$67.6 million reflecting non-cash impairment charges of \$74.4 million in the aerospace segment and lower sales volumes compared with the prior-year period. Impairment charges were recognized in the current quarter due to reduced expectations of future operating results due to the COVID-19 pandemic, which has significantly impacted the global economy, and particularly the aerospace industry. The Company recognized full impairments of the goodwill of Astronics Connectivity Systems and Certification ("ACSC"), PGA and Custom Control Concepts ("CCC") reporting units, and a partial impairment of the goodwill of the PECO reporting unit.

Net loss was \$67.0 million, or \$2.17 per diluted share, compared with net income of \$78.1 million, or \$2.35 per diluted share in the prior year. The after tax impact of the impairment was \$68.8 million, or \$2.23 per diluted share.

Consolidated adjusted EBITDA was \$16.2 million, or 10.3% of consolidated sales, compared with \$31.9 million, or 15.3% of consolidated sales, in the prior-year period. Adjusted EBITDA margin was negatively impacted in the 2020 first quarter by lower sales volume and the leverage lost from that decline.

Bookings were \$167.4 million, for a book-to-bill ratio, excluding the semiconductor business, of 1.07:1. Backlog at the end of the quarter was \$369.4 million. Approximately \$268.1 million, or 73%, of backlog is expected to ship in the remainder of 2020.

In September 2019, Astronics' Board of Directors approved a share repurchase program, authorizing the Company to repurchase, in the aggregate, up to \$50 million of its outstanding stock. Approximately 282,000 shares were repurchased in the first quarter at a cost of \$7.7 million before the 10b5-1 plan associated with the share repurchase program was terminated on February 3, 2020. The recently amended credit agreement temporarily restricts the repurchase of the Company's common stock.

Mr. Gundermann commented, "We began the first quarter concerned that the 737 MAX had not gained FAA certification in late December as we had expected, and that Boeing had decided to suspend production in January. The MAX was our largest production program in 2019. Then we saw the COVID-19 disruption spread around the globe in March, affecting our operations significantly and affecting our entire industry. That we were able to adjust to the situation and produce an adjusted EBITDA of 10% is a testament to the dedication and capability of our entire team."

Aerospace Segment Review (refer to sales by market and segment data in accompanying tables)

Aerospace First Quarter 2020 Results (compared with the prior-year period, unless noted otherwise)

Aerospace segment sales decreased \$47.4 million, or 25.2%, to \$141.1 million. Sales were negatively affected by the continued grounding of the 737 MAX and the OEM's decision to temporarily cease production in January, along with the spread of the COVID-19 virus in the later part of the quarter.

Aerospace segment operating loss was \$63.1 million compared with operating profit of \$25.8 million the same period last year. Aerospace operating profit was impacted by impairment charges of \$74.4 million, of which \$73.7 million was related to goodwill, as previously discussed. Leverage lost on reduced sales also significantly impacted operating results.

Aerospace bookings in the first quarter of 2020 were \$151.0 million, for a book-to-bill ratio of 1.07:1. Backlog was \$285.7 million at the end of the first quarter of 2020.

Test Systems Segment Review (refer to sales by market and segment data in accompanying tables)

Test Systems First Quarter 2020 Results (compared with the prior-year period, unless noted otherwise)

Test Segment sales were \$16.5 million, down \$3.2 million compared with the prior-year period. Semiconductor sales decreased \$1.7 million due to the sale of the semiconductor business which was divested on February 13, 2019, while organic sales decreased \$5.0 million. The Acquired Businesses contributed \$3.5 million in sales in the first guarter of 2020.

Test Systems operating profit was \$0.7 million, or 4.4% of sales, compared with operating profit of \$2.2 million, or 11.1% of sales, in last year's first quarter. Operating profit was impacted mostly by lower leverage on decreased sales volume.

Bookings for the Test Systems segment in the quarter were \$16.4 million, for a book-to-bill ratio, excluding semiconductor activity, of 1.10:1 for the quarter. Backlog was \$83.7 million at the end of the first quarter of 2020.

First Quarter 2020 Webcast and Conference Call

The Company will host a teleconference today at 11:00 a.m. ET.During the teleconference, management will review the financial and operating results for the period and discuss Astronics' corporate strategy and outlook. A question-and-answer session will follow.

The Astronics conference call can be accessed by calling 929.477.0402. The listen-only audio webcast can be monitored at www.astronics.com. To listen to the archived call, dial 412.317.6671 and enter replay pin number 9241897. The telephonic replay will be available from 2:00 p.m. on the day of the call through Wednesday, May 20, 2020. A transcript of the call will also be posted to the Company's Web site once available.

About Astronics Corporation

Astronics Corporation (Nasdaq: ATRO) serves the world's aerospace, defense, and other mission critical industries with proven, innovative technology solutions. Astronics works side-by-side with customers, integrating its array of power, connectivity, lighting, structures, interiors, and test technologies to solve complex challenges. For over 50 years, Astronics has delivered creative, customer-focused solutions with exceptional responsiveness. Today, global airframe manufacturers, airlines, military branches, completion centers, and Fortune 500 companies rely on the collaborative spirit and innovation of Astronics. The Company's strategy is to increase its value by developing technologies and capabilities that provide innovative solutions to its targeted markets.

For more information on Astronics and its products, visit its Web site at www.astronics.com.

Safe Harbor Statement

This news release contains forward-looking statements as defined by the Securities Exchange Act of 1934. One can identify these forward-looking statements by the use of the words "expect," "anticipate," "plan," "may," "will," "estimate" or other similar expressions and include all statements with regard to being the impact of COVID-19 on the Company and its future, achieving cash positive or neutral in 2020, expectations of demand by customers and markets, and EBTIDA margins. Because such statements apply to future events, they are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated by the statements. Important factors that could cause actual results to differ materially from what may be stated here include the impact of the global outbreak of COVID-19 and governmental and other actions taken in response, trend in growth with passenger power and connectivity on airplanes, the state of the aerospace and defense industries, the market acceptance of newly developed products, internal production capabilities, the timing of orders received, the status of customer certification processes and delivery schedules, the demand for and market acceptance of new or existing aircraft which contain the Company's products, the need for new and advanced test and simulation equipment, customer preferences and relationships, and other factors which are described in filings by Astronics with the Securities and Exchange Commission. The Company assumes no obligation to update forward-looking information in this news release whether to reflect changed assumptions, the occurrence of unanticipated events or changes in future operating results, financial conditions or prospects, or otherwise.

FINANCIAL TABLES FOLLOW

Depreciation and amortization

ASTRONICS CORPORATION CONSOLIDATED STATEMENT OF OPERATIONS DATA

(Unaudited, \$ in thousands except per share data)

Three Months Ended 3/28/2020 3/30/2019 \$ 157,584 208,174 Sales 121,865 156,097 Cost of products sold 52,077 35,719 Gross profit 22.7 % 25.0 % Gross margin 28,867 29,196 Selling, general and administrative SG&A % of sales 18.3 % 14.0 % Impairment loss¹ 74,408 22.881 (Loss) Income from operations (67,556)Operating margin (42.9)% 11.0 % 80,133 Gain on sale of business Other expense, net of other income 388 215 1,804 1,333 Interest expense, net 100,995 (69,277)(Loss) Income before tax Income tax (benefit) expense (2,314)22,849 (66,963)78,146 Net (loss) income 37.5 % Net (loss) income % of sales (42.5)% \$ 2.40 *Basic earnings per share: (2.17)\$ \$ (2.17)\$ 2.35 *Diluted earnings per share: *Weighted average diluted shares 30,813 33,214 outstanding (in thousands) 3,474 \$ 2,793 \$ Capital expenditures

\$

7,971

\$

8,076

¹Impairment loss primarily represents the goodwill impairment charges incurred in our Aerospace segment. Full impairment charges totaling \$73.7 million were recorded for goodwill associated to our CSC, PGA and CCC reporting units and a partial goodwill impairment was recorded at our PECO reporting unit.

ASTRONICS CORPORATION SEGMENT DATA

(Unaudited, \$ in thousands)

	Three Months	Ended
	3/28/2020	3/30/2019
Sales		
Aerospace	\$ 141,137 \$	188,501
Less inter-segment	(67)	_
Total Aerospace	 141,070	188,501
Test Systems	16,553	19,724
Less inter-segment	(39)	(51)
Total Test Systems	 16,514	19,673
Total consolidated sales	157,584	208,174
Segment operating (loss) profit and margins		
Aerospace	(63,145)	25,768
	(44.8)%	13.7 %
Test Systems	722	2,185
	 4.4 %	11.1 %
Total segment operating (loss) profit	(62,423)	27,953
Gain on sale of business	_	80,133
Interest expense	1,333	1,804
Corporate expenses and other	 5,521	5,287
(Loss) Income before taxes	\$ (69,277) \$	100,995

Reconciliation to Non-GAAP Performance Measures

In addition to reporting net income, a U.S. generally accepted accounting principle ("GAAP") measure, we present Adjusted EBITDA (earnings before interest, income taxes, depreciation and amortization, non-cash equity-based compensation expense, goodwill, intangible and long-lived asset impairment charges, equity investment income or loss, legal reserves, settlements and recoveries, restructuring charges and gains or losses associated with the sale of businesses), which is a non-GAAP measure. The Company's management believes Adjusted EBITDA is an important measure of operating performance because it allows management, investors and others to evaluate and compare the performance of its core operations from period to period by removing the impact of the capital structure (interest), tangible and intangible asset base (depreciation and amortization), taxes, equity-based compensation expense, goodwill, intangible and long-lived asset impairment charges, equity investment income or loss, legal reserves, settlements and recoveries, restructuring charges and gains or losses associated with the sale of businesses, which is not commensurate with the core activities of the reporting period in which it is included. As such, the Company uses Adjusted EBITDA as a measure of performance when evaluating its business and as a basis for planning and forecasting. Adjusted EBITDA is not a measure of financial performance under GAAP and is not calculated through the application of GAAP. As such, it should not be considered as a substitute for the GAAP measure of net income and, therefore, should not be used in isolation of, but in conjunction with, the GAAP measure. Adjusted EBITDA, as presented, may produce results that vary from the GAAP measure and may not be comparable to a similarly defined non-GAAP measure used by other companies.

ASTRONICS CORPORATION RECONCILIATION OF NET INCOME TO ADJUSTED EBITDA

(Unaudited, \$ in thousands)

Consolidated

	Three Months Ended		
	3/28/2020		3/30/2019
Net (loss) income	\$ (66,963)	\$	78,146
Add back (deduct):			
Interest expense	1,333		1,804
Income tax (benefit) expense	(2,314)		22,849
Depreciation and amortization expense	7,971		8,076
Equity-based compensation expense	1,703		1,193
Goodwill and other asset impairments	74,408		_
Equity investment loss	107		_
Gain on sale of business	_		(80,133)
Adjusted EBITDA	\$ 16,245	\$	31,935
Sales	\$ 157,584	\$	208,174
Adjusted EBITDA margin	10.3 %	5	15.3 %

ASTRONICS CORPORATION CONSOLIDATED BALANCE SHEET DATA (\$ in thousands)

	•	inaudited)	_	
ACCETO	3	3/28/2020	1	2/31/2019
ASSETS	c	400.004	œ.	24.000
Cash and cash equivalents	\$	188,364	\$	31,906
Accounts receivable and uncompleted contracts		133,729		147,998
Inventories		151,798		145,787
Other current assets		20,658		15,853
Assets held for sale		_		1,537
Property, plant and equipment, net		111,522		112,499
Other long-term assets		49,950		54,873
Intangible assets, net		123,008		127,293
Goodwill		70,997		144,970
Total assets	\$	850,026	\$	782,716
LIABILITIES AND SHAREHOLDERS' EQUITY				
Current maturities of long-term debt	\$	223	\$	224
Accounts payable and accrued expenses		89,147		89,056
Customer advances and deferred revenue		30,832		31,360
Long-term debt		333,000		188,000
Other liabilities		83,015		85,219
Shareholders' equity		313,809		388,857
Total liabilities and shareholders' equity	\$	850,026	\$	782,716

ASTRONICS CORPORATION CONSOLIDATED CASH FLOWS DATA

(Unaudited, \$ in thousands)

Cash flows from operating activities \$ (86.98) \$ (87.87) Net (loss) income \$ (86.98) 8 (86.98) 8 (86.98) Adjustments to reconcile (loss) income to cash provided by operating activities, excluding the effects of circuits control of the control of		Three Months Ended			<u>ed</u>
Net (loss) income \$ (6,693) \$ 78,146 Adjustments to econcile net (loss) income to cash provided by operating activities, excluding the effects of divestitures: Secondary of the control of the cont		;	3/28/2020		3/30/2019
Adjustments to reconcile net (loss) income to cash provided by operating activities, excluding the effects of divestitures: 7,971 8,076 Depreciation and amortization 7,971 8,076 Provisions for non-cash losses on inventory and receivables 872 2,488 Equity-based compensation expense 1,70 1,398 Operating lease amortization expense 1,210 988 Gain on sale of business, before taxes 74,408 - Gain on sale of business, before taxes 74,408 - Other 968 7363 Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 13,644 66,414 Inventories (7,224) 5,943 Accounts receivable 7,224 5,943 Inventories (7,224) 5,943 Accounts payable 6,255 (2,032) Accured expenses (3,57) 2,860 Other current assets and liabilities (577) 2,860 Income taxes (3,59) 6,255 (2,032) Listomer advanced payments and deferred revenue (3,59) 6,25	Cash flows from operating activities:				
divestitures: 7,971 8,076 Depreciation and amortization 7,971 8,076 Provisions for non-cash losses on inventory and receivables 872 2,488 Equity-based compensation expense 1,103 1,193 Deferred tax expenses (lenefit) 2,050 3,138 Operating lease amortization expense 1,210 988 Gain on sale of business, before taxes 7,408 7-2 Other 968 736 Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 4,408 7-2 Accounts receivable 13,644 6,414 6,414 Inventories 1,264 6,543 6,635 2,032 Accounts payable 6,295 (2,032 6,255 2,032 Accurated expenses (5730) 9,283 6,626 1,262 Ober current assets and liabilities (5730) 9,283 6,625 1,280 Customer advanced payments and deferred revenue (5730) 9,283 1,582 1,582 Customer advanced payments and deferred rev	Net (loss) income	\$	(66,963)	\$	78,146
Provisions for non-cash losses on inventory and receivables 872 2,498 Equity-based compensation expense 1,703 1,133 Deferred tax expense (benefit) 2,050 3,398 Operating lease amortization expense 1,210 988 Gain on sale of business, before taxes 74,408 — Other 968 736) Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 13,644 (6,414) I number of ceivable 13,644 (6,414) I number of ceivable (7,224) (5,943) Accounts receivable (5,730) (9,283) Other current assets and liabilities (6,295) (2,280) </td <td></td> <td></td> <td></td> <td></td> <td></td>					
Equity-based compensation expense 1,703 1,193 Deferred tax expense (benefit) 2,050 3,398 Operating lease amortization expense 1,210 988 Gain on sale of business, before taxes — (80,133) Impairment loss 74,408 — Other 968 (736) Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 13,644 (6,444) Inventories (7,224) (5,943) Accounts receivable 6,295 (2,032) Accounts payable 6,295 (2,032) Accrued expenses (5,750) (9,283) Other current assets and liabilities (557) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,242 Operating lease liabilities (99) 1,378 Cash flows from investing activities (99) 1,378 Cash flows from investing activities (2,793) 3,074 Cash (used for) provided by investing activities (2,793) <	Depreciation and amortization		7,971		8,076
Deferred tax expense (benefit) 2,050 (3,398) Operating lease amortization expense 1,210 988 Gain on sale of business, before taxes — (80,133) Impairment loss 74,408 — Other 968 (736) Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: T Accounts receivable 13,644 (6,414) Inventories (7,224) (5,943) Accounts payable 6,295 (2,032) Accrued expenses (5,730) (9,283) Other current assets and liabilities (5,757) (2,860) Customer advanced payments and deferred revenue (3,591) 4,055 Income taxes (3,591) 4,055 Income taxes (3,591) 4,055 Income taxes (3,591) 1,378 Cash provided by operating activities (9) 1,378 Cash provided by operating activities (2,793) 3,474 Cash flows from investing activities (2,793) 3,474 Cash flows from inves	Provisions for non-cash losses on inventory and receivables		872		2,498
Operating lease amortization expense 1,210 988 Gain on sale of business, before taxes — (80,133) Impairment loss 74,408 — Other 968 (736) Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 13,644 (6,414) Accounts receivable (7,224) (5,943) Accounts payable 6,295 (2,032) Accounts payable (5,730) (9,283) Other current assets and liabilities (557) (2,860) Qustomer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (3,93) 13,354 Cash flows from investing activities 23,250 11,354 Cash flows from investing activities 2,793 10,379 Cash (used for) provided by investing activities (2,793) 13,474 Cash (used for) provided by investing activities (2,793) 10,300 Cash (us	Equity-based compensation expense		1,703		1,193
Gain on sale of business, before taxes — (80,133) Impairment loss 74,408 — Other 968 (736) Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 13,644 (6,414) Accounts receivable 13,644 (6,414) Inventories 13,644 (6,414) Inventories 6,295 (2,032) Accounts payable (5,730) (9,283) Other current assets and liabilities (557) (2,860) Customer advanced payments and deferred revenue (6,573) (9,283) Other current assets and liabilities (3,591) 26,824 Operating lease liabilities (3,591) 26,824 Operating lease liabilities (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Subject and the company of th	Deferred tax expense (benefit)		2,050		(3,398)
Impairment loss 74,408 — Other 968 (736) Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: — Accounts receivable 13,644 (6,414) Inventories (7,224) (5,943) Accounts payable 6,295 (2,032) Accoude expenses (5,570) (9,283) Other current assets and liabilities (557) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 28,282 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities - 103,793 Capital expenditures - 103,793 Capital expenditures - 103,793 Capital expenditures - 103,793 Capital expenditures - 103,793 Cash flows from investing activitie	Operating lease amortization expense		1,210		988
Other 968 (736) Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 13,644 (6,414) Accounts receivable 13,644 (6,414) Inventories (7,224) (5,943) Accounts payable 6,295 (2,032) Accound expenses (5,730) (9,283) Other current assets and liabilities (557) (2,880) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (99) 1,378 Cash provided by operating activities (99) 1,378 Cash flows from investing activities (99) 1,378 Cash flows from investing activities 7 103,793 Capital expenditures 2,793 3,474 Cash (lused for) provided by investing activities 2,793 10,039 Capital expenditures 2,793 10,000 Porceased from financing activities 150,000 10,000 Cash flows from financing activities 33 <t< td=""><td>Gain on sale of business, before taxes</td><td></td><td>_</td><td></td><td>(80,133)</td></t<>	Gain on sale of business, before taxes		_		(80,133)
Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures: 13,644 (6,144) Accounts receivable 13,644 (6,149) Inventories 6,295 (2,032) Accounts payable (5,730) (9,283) Other current assets and liabilities (557) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 29,29 1,378 Cash flows from investing activities 2,99 1,378 Cash flows from investing activities 2,793 3,474 Cash (used for) provided by investing activities 2,793 1,3793 Cash (used for) provided by investing activities 150,000 10,000 Payments for long-term debt 5,000 (12,026) Purchase of outstanding shares for treasury 5,000 (12,026) Purchase of outstanding shares for treasury 33 <t< td=""><td>Impairment loss</td><td></td><td>74,408</td><td></td><td>_</td></t<>	Impairment loss		74,408		_
Accounts receivable 13,644 (6,414) Inventories (7,224) (5,943) Accounts payable 6,295 (2,032) Accrued expenses (5,730) (9,283) Other current assets and liabilities (5577) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (12,17) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities 23,250 11,354 Cash geon sale of business - 10,379 Cash (used for) provided by investing activities (2,793) 10,319 Cash flows from financing activities (2,793) 10,019 Cash flows from financing activities (2,793) 10,000 Payments for long-term debt 5,000 (12,2026) Purchase of outstanding shares for treasury (7,732) -	Other		968		(736)
Inventories (7,224) (5,945) Accounts payable 6,295 (2,032) Accrued expenses (5,730) (9,283) Other current assets and liabilities (5,577) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (99) 1,378 Cash provided by operating activities 29,250 11,354 Cash flows from investing activities 23,250 11,354 Cash qualities (2,793) (3,474) Cash (used for) provided by investing activities (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 10,319 Cash (used for) provided by investing activities (2,793) 10,319 Cash (used for) provided by investing activities (2,793) 10,319 Cash (used for) provided by investing activities (2,793) 10,319 Cash (used for) provided by (used for) provided by (used for) financing activities (3,591) 1,500 Purchase of outstanding shares for treasury (7,732)	Cash flows from changes in operating assets and liabilities, excluding the effects of divestitures:				
Accounts payable 6,295 (2,032) Accrued expenses (5,730) (9,283) Other current assets and liabilities (557) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,364 Cash flows from investing activities - 103,793 Capital expenditures - 103,793 Capital expenditures (2,793) 10,319 Cash flows from financing activities (2,793) 100,319 Cash flows from financing activities 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) - Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840	Accounts receivable		13,644		(6,414)
Accrued expenses (5,730) (9,283) Other current assets and liabilities (557) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities 2 103,793 Cash flows from investing activities 2 103,793 Cash (used for) provided by investing activities (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 103,793 Cash (used for) provided by investing activities (2,793) 10,000 Payments for long-term debt 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) <td>Inventories</td> <td></td> <td>(7,224)</td> <td></td> <td>(5,943)</td>	Inventories		(7,224)		(5,943)
Other current assets and liabilities (557) (2,860) Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities Proceeds on sale of business — 103,793 Cash (used for) provided by investing activities 2,793 13,474 Cash (lows from financing activities 2,793 10,319 Cash (used for) provided by investing activities 150,000 10,000 Payments for long-term debt (5,000) (122,026) Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury 33 159 Finance lease principal payments (461) (393) Cash provided by (used for) financing activities 33,840 (112,262) Effect of exchange rates on cash (839) (670) Increase (de	Accounts payable		6,295		(2,032)
Customer advanced payments and deferred revenue (490) 4,055 Income taxes (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities Proceeds on sale of business — 103,793 Capital expenditures (2,793) 3,474 Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities (2,793) 10,000 Payments for long-term debt 150,000 10,000 Purchase of outstanding shares for treasury (5,000) (122,026) Purchase of outstanding shares for treasury 33 155 Stock options activities 33 155 Cash provided by (used for) financing activities (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decr	Accrued expenses		(5,730)		(9,283)
Income taxes (3,591) 26,824 Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities Proceeds on sale of business – 103,793 Capital expenditures (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities (2,793) 10,000 Proceeds from long-term debt 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) – Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash	Other current assets and liabilities		(557)		(2,860)
Operating lease liabilities (1,217) (1,005) Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities: Proceeds on sale of business — 103,793 Capital expenditures (2,793) (3,474) Cash (used for) provided by investing activities — 100,319 Cash flows from financing activities: — 150,000 100,000 Porceeds from long-term debt 150,000 10,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury 7,732 — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 31,906 16,628	Customer advanced payments and deferred revenue		(490)		4,055
Supplemental retirement and other liabilities (99) 1,378 Cash provided by operating activities 23,250 11,354 Cash flows from investing activities: - 103,793 Proceeds on sale of business - 103,793 Capital expenditures (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities: 150,000 10,000 Proceeds from long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) - Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Income taxes		(3,591)		26,824
Cash provided by operating activities 23,250 11,354 Cash flows from investing activities: - 103,793 Proceeds on sale of business - 103,793 Capital expenditures (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities: - 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) - Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Operating lease liabilities		(1,217)		(1,005)
Cash flows from investing activities: Proceeds on sale of business — 103,793 Capital expenditures (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities: Proceeds from long-term debt 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Supplemental retirement and other liabilities		(99)		1,378
Proceeds on sale of business — 103,793 Capital expenditures (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities: Proceeds from long-term debt 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Cash provided by operating activities		23,250		11,354
Capital expenditures (2,793) (3,474) Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities: Proceeds from long-term debt 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Cash flows from investing activities:				
Cash (used for) provided by investing activities (2,793) 100,319 Cash flows from financing activities: Tocal content of the content of t	Proceeds on sale of business		_		103,793
Cash flows from financing activities: Proceeds from long-term debt 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Capital expenditures		(2,793)		(3,474)
Proceeds from long-term debt 150,000 10,000 Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Cash (used for) provided by investing activities		(2,793)		100,319
Payments for long-term debt (5,000) (122,026) Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Cash flows from financing activities:				
Purchase of outstanding shares for treasury (7,732) — Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Proceeds from long-term debt		150,000		10,000
Stock options activities 33 159 Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Payments for long-term debt		(5,000)		(122,026)
Finance lease principal payments (461) (395) Cash provided by (used for) financing activities 136,840 (112,262) Effect of exchange rates on cash (839) (67) Increase (decrease) in cash and cash equivalents 156,458 (656) Cash and cash equivalents at beginning of period 31,906 16,622	Purchase of outstanding shares for treasury		(7,732)		_
Cash provided by (used for) financing activities136,840(112,262)Effect of exchange rates on cash(839)(67)Increase (decrease) in cash and cash equivalents156,458(656)Cash and cash equivalents at beginning of period31,90616,622	Stock options activities		33		159
Effect of exchange rates on cash(839)(67)Increase (decrease) in cash and cash equivalents156,458(656)Cash and cash equivalents at beginning of period31,90616,622	Finance lease principal payments		(461)		(395)
Increase (decrease) in cash and cash equivalents Cash and cash equivalents at beginning of period 156,458 (656) 31,906 16,622	Cash provided by (used for) financing activities		136,840		(112,262)
Increase (decrease) in cash and cash equivalents Cash and cash equivalents at beginning of period 156,458 (656) 31,906 16,622	Effect of exchange rates on cash		(839)		(67)
	Increase (decrease) in cash and cash equivalents		156,458		(656)
Cash and cash equivalents at end of period \$ 188.364 \$ 15.966	Cash and cash equivalents at beginning of period		31,906		16,622
	Cash and cash equivalents at end of period	\$	188,364	\$	15,966

ASTRONICS CORPORATION SALES BY MARKET

(Unaudited, \$ in thousands)

	Three Months Ended				
		3/28/2020	3/30/2019	% Change	% of Sales
Aerospace Segment					
Commercial Transport	\$	102,775 \$	141,778	(27.5)%	65.3 %
Military		18,113	20,953	(13.6)%	11.5 %
Business Jet		15,006	19,837	(24.4)%	9.5 %
Other		5,176	5,933	(12.8)%	3.3 %
Aerospace Total		141,070	188,501	(25.2)%	89.6 %
Test Systems Segment excluding Semiconductor		14,880	16,319	(8.8) %	9.4 %
Total sales excluding Semiconductor		155,950	204,820	(23.9)%	99.0 %
Test-Semiconductor		1,634	3,354	(51.3)%	1.0 %
Total Sales	\$	157,584 \$	208,174	(24.3)%	

SALES BY PRODUCT LINE

(Unaudited, \$ in thousands)

	Three Months Ended				
		3/28/2020	3/30/2019	% Change	% of Sales
Aerospace Segment					
Electrical Power & Motion	\$	69,456 \$	92,537	(24.9)%	44.1 %
Lighting & Safety		37,922	48,605	(22.0)%	24.1 %
Avionics		22,143	33,861	(34.6)%	14.1 %
Systems Certification		3,331	1,618	105.9 %	2.1 %
Structures		3,042	5,947	(48.8)%	1.9 %
Other		5,176	5,933	(12.8)%	3.3 %
Aerospace Total		141,070	188,501	(25.2)%	89.6 %
Test Systems Segment excluding Semiconductor		14,880	16,319	(8.8)%	9.4 %
Total sales excluding Semiconductor		155,950	204,820	(23.9)%	99.0 %
Test-Semiconductor		1,634	3,354	(51.3)%	1.0 %
Total Sales	\$	157,584 \$	208,174	(24.3)%	

ASTRONICS CORPORATION ORDER AND BACKLOG TREND (Unaudited, \$ in thousands)

	Q2 2019 6/29/2019	Q3 2019 9/28/2019	Q4 2019 12/31/2019	Q1 2020 3/28/2020	Trailing Twelve Months 3/28/2020
Sales					
Aerospace	\$ 174,287 \$	157,702 \$	172,119 \$	141,070 \$	645,178
Test Systems (excluding Semi)	 12,569	17,097	24,416	14,880	68,962
Sales (excluding Semi)	 186,856	174,799	196,535	155,950	714,140
Test-Semiconductor	2,242	2,219	1,877	1,634	7,972
Total Sales	\$ 189,098 \$	177,018 \$	198,412 \$	157,584 \$	722,112
Bookings					
Aerospace	\$ 157,631 \$	155,336 \$	139,649 \$	150,989 \$	603,605
Test Systems (excluding Semi)	12,675	20,892	16,393	16,386	66,346
Bookings (excluding Semi)	 170,306	176,228	156,042	167,375	669,951
Test-Semiconductor	354	330	158	4	846
Total Bookings	\$ 170,660 \$	176,558 \$	156,200 \$	167,379 \$	670,797
Backlog ¹					
Aerospace	\$ 310,590 \$	308,224 \$	275,754 \$	285,673	
Test Systems (excluding Semi)	62,035	65,939	80,358	81,864	
Backlog (excluding Semi)	 372,625	374,163	356,112	367,537	
Test-Semiconductor	7,087	5,198	3,479	1,849	
Total Backlog	\$ 379,712 \$	379,361 \$	359,591 \$	369,386	N/A
Book:Bill Ratio ²					
Aerospace	0.90	0.98	0.81	1.07	0.94
Test Systems excl. Semi	1.01	1.22	0.67	1.10	0.96
Total Book:Bill excl. Semi	 0.91	1.01	0.79	1.07	0.94

¹ Aerospace backlog of approximately \$2.0 million has been removed in the second quarter of 2019 above related to the airfield lighting product line, which was divested in July 2019. Test Systems backlog of approximately \$0.1 million was added in the third quarter of 2019 above related to the acquisition of FCT. Test Systems backlog of approximately \$22.4 million was added in the fourth quarter of 2019 above related to the acquisition of Diagnosys.

² Calculations of Test Systems and Total Book:Bill excludes the total semiconductor business, which does include residual warranty backlog that is expected to be recognized.