KVH INDUSTRIES INC \DE\
Form 10-Q
August 02, 2018
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)
ý QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended: June 30, 2018
OR
o 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 0-28082

KVH Industries, Inc.
(Exact Name of Registrant as Specified in its Charter)

Delaware	05-0420589
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

50 Enterprise Center, Middletown, RI 02842
(Address of Principal Executive Offices) (Zip Code)
(401) 847-3327
(Registrant's Telephone Number, Including Area Code)

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 ý No o

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company, or an emerging growth 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. (Check one):

Large accelerated filer o	Accelerated filer ý
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o
	Emerging growth company o

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. o

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Date	Class	Outstanding shares
July 31, 2018	Common Stock, par value $0.01 per share	17,664,348

KVH INDUSTRIES, INC. AND SUBSIDIARIES
Form 10-Q
INDEX

PART I. FINANCIAL INFORMATION
ITEM 1. Financial Statements
KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except per share and share amounts)

	June 30, 2018 (unaudited)		December 31, 2017	
ASSETS				
Current assets:				
Cash and cash equivalents	$	34,537	$	34,596
Marketable securities	335		8,319	
Accounts receivable, net of allowance for doubtful accounts of $2,489 and $2,852 as of June 30, 2018 and December 31, 2017, respectively	29,837		28,316	
Inventories	22,912		22,732	
Prepaid expenses and other current assets	3,339		3,816	
Current contract assets	3,419		—	
Total current assets	94,379		97,779	
Property and equipment, less accumulated depreciation of $54,096 and $51,099 as of June 30, 2018 and December 31, 2017, respectively	50,069		43,521	
Intangible assets, less accumulated amortization of $22,799 and $20,656 as of June 30, 2018 and December 31, 2017, respectively	12,743		15,120	
Goodwill	33,237		33,872	
Other non-current assets	6,735		5,927	
Non-current contract assets	6,266		—	
Non-current deferred income tax asset	198		20	
Total assets	$	203,627	$	196,239
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	$	16,775	$	15,736
Accrued compensation and employee-related expenses	4,866		5,358	
Accrued other	8,289		9,210	
	2,039		2,074	

Accrued product warranty costs						
Deferred revenue	—			6,919		
Current portion of long-term debt	4,990			2,482		
Contract liabilities	11,051			—		
Liability for uncertain tax positions	1,444			1,570		
Total current liabilities	49,454			43,349		
Other long-term liabilities	2,213			19		
Long-term contract liabilities	8,374			—		
Long-term debt, excluding current portion	38,575			44,572		
Non-current deferred income tax liability	2,580			2,634		
Total liabilities	$	101,196		$	90,574	
Commitments and contingencies (Note 2, 10, 12, and 19)						
Stockholders’ equity:						
Preferred stock, $0.01 par value. Authorized 1,000,000 shares; none issued	—			—		
Common stock, $0.01 par value. Authorized 30,000,000 shares; 18,936,639 and 18,787,816 shares issued at June 30, 2018 and December 31, 2017, respectively; and 17,654,217 and 17,128,825 shares outstanding at June 30, 2018 and December 31, 2017, respectively	189			188		
Additional paid-in capital	137,508			134,361		
Accumulated deficit	(12,401		)	(4,417		)
Accumulated other comprehensive loss	(12,701		)	(11,317		)
	112,595			118,815		
Less: treasury stock at cost, common stock, 1,282,422 and 1,658,991 shares as of June 30, 2018 and December 31, 2017, respectively	(10,164		)	(13,150		)
Total stockholders’ equity	102,431			105,665		
Total liabilities and stockholders’ equity	$	203,627		$	196,239	

See accompanying Notes to Unaudited Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except earnings per share amounts, unaudited)

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2018	2017	2018	2017
Sales:				
Product	$16,162	$14,323	$30,154	$29,186
Service	27,230	26,126	53,339	51,474
Net sales	43,392	40,449	83,493	80,660
Costs and expenses:				
Costs of product sales	10,094	9,295	19,017	19,834
Costs of service sales	15,498	13,094	29,314	26,362
Research and development	3,565	3,761	7,499	7,708
Sales, marketing and support	8,494	8,124	17,435	16,864
General and administrative	6,928	7,543	14,595	15,730
Total costs and expenses	44,579	41,817	87,860	86,498
Loss from operations	(1,187)	(1,368)	(4,367)	(5,838)
Interest income	155	159	303	325
Interest expense	428	349	837	702
Other income (expense), net	446	(112)	172	(180)
Loss before income tax expense	(1,014)	(1,670)	(4,729)	(6,395)
Income tax expense	329	356	507	516
Net loss	$(1,343)	$(2,026)	$(5,236)	$(6,911)
Net loss per common share				
Basic and diluted	$(0.08)	$(0.12)	$(0.31)	$(0.42)
Weighted average number of common shares outstanding:				
Basic and diluted	17,140	16,446	16,942	16,354

See accompanying Notes to Unaudited Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(in thousands, unaudited)

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2018	2017	2018	2017
Net loss	$(1,343)	$(2,026)	$(5,236)	$(6,911)
Other comprehensive (loss) income, net of tax:				
Unrealized (loss) gain on available-for-sale securities	—	(3)	1	(3)
Foreign currency translation adjustment	(3,866)	2,440	(1,422)	3,041
Unrealized gain on derivative instruments, net	15	18	37	45
Other comprehensive (loss) income, net of tax(1)	(3,851)	2,455	(1,384)	3,083
Total comprehensive (loss) income	$(5,194)	$429	$(6,620)	$(3,828)

(1) Tax impact was nominal for all periods.

See accompanying Notes to Unaudited Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands, unaudited)

	Six Months Ended June 30, 2018	Six Months Ended June 30, 2017
Cash flows from operating activities:		
Net loss	$(5,236)	$(6,911)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Provision for doubtful accounts	129	294
Depreciation and amortization	6,288	5,477
Deferred income taxes	24	—
Loss on sale of fixed assets	—	3
Compensation expense related to stock-based awards and employee stock purchase plan	1,592	1,812
Unrealized currency translation gain	(212)	(119)
Changes in operating assets and liabilities:		
Accounts receivable	(1,719)	4,051
Inventories	(137)	(2,661)
Prepaid expenses, other current assets, and current contract assets	230	(49)
Other non-current assets and non-current contract assets	(1,252)	(577)
Accounts payable	908	2,345
Deferred revenue, contract liabilities, and long-term contract liabilities	527	3,004
Accrued compensation, product warranty, and other	(2,331)	397
Other long-term liabilities	(9)	(294)
Net cash (used in) provided by operating activities	$(1,198)	$6,772
Cash flows from investing activities:		
Capital expenditures	(7,461)	(6,809)
Cash paid for acquisition of intangible asset	—	(50)
Purchases of marketable securities	(2,036)	(7,348)
Maturities and sales of marketable securities	10,020	19,286
Net cash provided by investing activities	$523	$5,079
Cash flows from financing activities:		
Repayments of long-term debt	(89)	(1,561)
Repayments of term note borrowings	(3,400)	(8,200)
Payment of employee restricted stock withholdings	—	(392)
Proceeds from stock options exercised and employee stock purchase plan	101	1,268
Sale of treasury stock	4,500	—
Payment of capital lease	(258)	—
Net cash provided by (used in) financing activities	$854	$(8,885)
Effect of exchange rate changes on cash and cash equivalents	(238)	1,043
Net (decrease) increase in cash and cash equivalents	(59)	4,009
Cash and cash equivalents at beginning of period	34,596	26,422
Cash and cash equivalents at end of period	$34,537	$30,431
Supplemental disclosure of non-cash investing activities:		
Changes in accrued other and accounts payable related to property and equipment additions	$624	$1,452
Deferred purchase price consideration related to asset acquisition included in accrued expenses	$—	$50

See accompanying Notes to Unaudited Consolidated Financial Statements.

6

KVH INDUSTRIES, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements
(Unaudited, all amounts in thousands except per share amounts)

(1) Description of Business

KVH Industries, Inc. (together with its subsidiaries, the Company or KVH) is a leading manufacturer of solutions that provide global high-speed Internet, television, and voice services via satellite to mobile users at sea and on land. KVH is also a leading provider of commercially licensed entertainment, including news, sports, music, and movies, to commercial and leisure customers in the maritime, hotel, and retail markets. In addition, the Company develops and distributes training films and eLearning computer-based training courses to commercial maritime customers. KVH is also a premier manufacturer of high-performance navigational sensors and integrated inertial systems for defense and commercial applications. KVH's reporting segments are as follows:

- the mobile connectivity segment and
- the inertial navigation segment

KVH's mobile connectivity products enable customers to receive voice services, Internet services, and live digital television via satellite services in marine vessels, recreational vehicles, buses and automobiles. KVH's CommBox offers a range of tools designed to increase communication efficiency, reduce costs, and manage network operations. KVH sells and leases its mobile connectivity products through an extensive international network of dealers and distributors. KVH also sells and leases products directly to end users. In October 2017, KVH introduced a new 60-cm diameter TracPhone V7-HTS Ku-band antenna which is designed to deliver faster data speeds globally to the maritime market. KVH is able to offer download/upload speeds as fast as 10 Mbps/3 Mbps by combining KVH's proprietary antenna system design and industry-leading mini-VSAT Broadband network, along with partnering with Intelsat Epic satellite services for high throughput satellite (HTS) capabilities and additional capacity from SKY Perfect JSAT satellites. With the HTS network, the Company added an additional 25 million square miles to our global maritime Ku-band high-speed connectivity footprint.

KVH's mobile connectivity service sales primarily represent sales earned from satellite voice and Internet airtime services. KVH provides, for monthly fixed and usage fees, satellite connectivity services, including broadband Internet, data and VoIP services, to its TracPhone V-series customers. In the second quarter of 2017, the Company launched a new mini-VSAT Broadband service offering, AgilePlans, which is a monthly subscription model providing global connectivity to commercial maritime customers, including hardware, installation, broadband Internet, Voice over Internet Protocol (VoIP), entertainment and training content and global support for a monthly fee with no minimum commitment. KVH offers AgilePlans customers a variety of airtime data plans with varying data speeds and fixed data usage levels with overage charges per megabyte, which is similar to the plans that the Company offers to its other customers. The Company recognizes the monthly subscription fee as service revenue over the service delivery period. The Company retains ownership of the hardware that it provides to AgilePlans customers, who must return the hardware to KVH if they decide to terminate the service. Because KVH does not sell the hardware under AgilePlans, the Company does not recognize any product revenue when the hardware is deployed to an AgilePlans customer. KVH records the cost of the hardware used by AgilePlans customers as revenue-generating assets and depreciates the cost over an estimated useful life of five years. Since the Company is retaining ownership of the hardware, it does not accrue any warranty costs for AgilePlans hardware; however, any maintenance costs on the hardware are expensed in the period these costs are incurred. Mobile connectivity service sales also include the distribution of commercially licensed entertainment, including news, sports, music, and movies to commercial and leisure customers in the maritime, hotel, and retail markets through KVH Media Group, and the distribution of training films and eLearning computer-based training courses to commercial customers in the maritime market through Super Dragon Limited and Videotel Marine Asia Limited (together referred to as Videotel). KVH also earns monthly usage fees from third-party satellite connectivity services, including voice, data and Internet services, provided to its Inmarsat and Iridium customers who choose to activate their subscriptions with KVH. Mobile connectivity service sales also include engineering services provided under development contracts, sales from product repairs, and extended warranty sales.

KVH's inertial navigation products offer precision fiber optic gyro (FOG)-based systems that enable platform and optical stabilization, navigation, pointing and guidance. KVH’s inertial navigation products also include tactical navigation systems that provide uninterrupted access to navigation and pointing information in a variety of military vehicles, including tactical trucks and light armored vehicles. KVH’s inertial navigation products are sold directly to U.S. and foreign governments and government contractors, as well as through an international network of authorized independent sales representatives. In addition, KVH's inertial navigation technology is used in numerous commercial products, such as navigation and positioning systems for various applications including precision mapping, dynamic surveying, autonomous vehicles, train location control and track geometry measurement systems, industrial robotics and optical stabilization.

KVH’s inertial navigation service sales include product repairs, engineering services provided under development contracts and extended warranty sales.

(2) Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements of KVH Industries, Inc. and its wholly owned subsidiaries have been prepared in accordance with accounting principles generally accepted in the United States of America. The Company has evaluated all subsequent events through the date of this filing. All significant intercompany accounts and transactions have been eliminated in consolidation.

The consolidated financial statements have not been audited by the Company’s independent registered public accounting firm and include all adjustments (consisting of only normal recurring adjustments) which are, in the opinion of management, necessary for a fair presentation of the financial condition, results of operations, and cash flows for the periods presented. These consolidated financial statements do not include all disclosures associated with annual financial statements and accordingly should be read in conjunction with the Company’s consolidated financial statements and related notes included in the Company’s annual report on Form 10-K for the year ended December 31, 2017 filed on March 2, 2018 with the Securities and Exchange Commission. The results for the three and six months ended June 30, 2018 are not necessarily indicative of operating results for the remainder of the year.

Significant Estimates and Assumptions and Other Significant Non-Recurring Transactions

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of sales and expenses during the reporting periods. As described in the Company’s annual report on Form 10-K, the most significant estimates and assumptions by management affect the Company’s revenue recognition, valuation of accounts receivable, valuation of inventory, valuations and deferred purchase price consideration related to asset acquisition, expected future cash flows including growth rates, discount rates, terminal values and other assumptions and estimates used to evaluate the recoverability of long-lived assets and goodwill, estimated fair values of long-lived assets, including goodwill, amortization methods and periods, certain accrued expenses and other related charges, stock-based compensation, contingent liabilities, key valuation assumptions for its share-based awards, estimated fulfillment costs for warranty obligations, tax reserves and recoverability of the Company’s net deferred tax assets and related valuation allowance. The Company has reviewed these estimates and determined that these remain the most significant estimates for the six months ended June 30, 2018.

Although the Company regularly assesses these estimates, actual results could differ materially from these estimates. Changes in estimates are recorded in the period in which they become known. The Company bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances.

The only material change to the significant accounting policies disclosed in the Company's annual report on Form 10-K for the year ended December 31, 2017 was the Company's adoption of Accounting Standards Codification (ASC) 606, Revenue from Contracts with Customers effective January 1, 2018. Please see footnote 16 for further discussion.

On February 27, 2018, the Company entered into a stock purchase agreement with SKY Perfect JSAT Corporation, or SJC, pursuant to which the Company agreed to sell 377 shares of treasury stock to SJC for a purchase price of $11.95 per share, or an aggregate of $4,500, in a private placement. The transaction closed on February 28, 2018.

During the first quarter of 2018, the Company entered into a five-year capital lease for three satellite hubs for the HTS network. Please see footnote 19 for further discussion.

(3) Accounting Standards Issued and Not Yet Adopted

ASC Update No. 2016-02

In February 2016, the FASB issued ASC Update No. 2016-02, Leases (Topic 842). It is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Earlier application is permitted. Update No. 2016-02 creates new accounting and reporting guidelines for leasing arrangements. The new guidance requires organizations that lease assets to recognize assets and liabilities on the balance sheet related to the rights and obligations created by those leases, regardless of whether they are classified as finance or operating leases. Consistent with current guidance, the recognition, measurement, and presentation of expenses and cash flows arising from a lease primarily will depend on its classification as a finance or operating lease. The guidance also requires new disclosures to help financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. The new standard is to be applied using a modified retrospective approach. The Company is currently evaluating the impact of the new pronouncement on its financial statements. Based on its preliminary assessment, upon adoption the Company expects to recognize significant right-to-use assets and corresponding lease liabilities on its balance sheet related to leased facilities and equipment.

ASC Update No. 2016-13

In June 2016, the FASB issued ASC Update No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. The update is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted for fiscal years beginning after December 15, 2018. The purpose of Update No. 2016-13 is to replace the current incurred loss impairment methodology for financial assets measured at amortized cost with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information, including forecasted information, to develop credit loss estimates. The adoption of Update No. 2016-13 is not expected to have a material impact on the Company's financial position or results of operations.

ASC Update No. 2017-12

In August 2017, the FASB issued ASC Update No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities. The update is effective for annual periods beginning after December 15, 2018. Early adoption is permitted. The purpose of Update No. 2017-12 is to improve the presentation and disclosure requirements for, and simplify the application and increase transparency of hedge accounting. The adoption of Update No. 2017-12 is not expected to have a material impact on the Company's financial position or results of operations.

ASC Update No. 2018-07

In June 2018, the FASB issued ASC Update No. 2018-07, Compensation-Stock Compensation (Topic 718) Improvements to Nonemployee Share-Based Payment Accounting. The update is effective for annual periods beginning on or after December 15, 2018. Early adoption is permitted. The purpose of Update No. 2018-07 is to expands the scope of the employee share-based payments guidance to include share-based payments issued to nonemployees. The Company expects that the adoption of this standard will only affect, on a prospective basis, the manner in which the Company evaluates any changes to the terms or conditions of its share-based payment awards.

There are no other recent accounting pronouncements issued by the FASB that are expected to have a material impact on the Company's financial statements.

(4) Marketable Securities

Marketable securities as of June 30, 2018 and December 31, 2017 consisted of the following:

June 30, 2018	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market mutual funds	$ 335	$ —	$ —	$ 335
Total marketable securities designated as available-for-sale	$ 335	$ —	$ —	$ 335

December 31, 2017	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Money market mutual funds	$ 7,318	$ —	$ —	$7,318
Certificates of deposit	1,002	—	(1)	1,001
Total marketable securities designated as available-for-sale	$ 8,320	$ —	$ (1)	$8,319

The amortized costs and fair value of marketable securities as of June 30, 2018 and December 31, 2017 are shown below by effective maturity. Effective maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations without prepayment penalties.

June 30, 2018	Amortized Cost	Fair Value
Due in less than one year	$ —	$—

December 31, 2017	Amortized Cost	Fair Value
Due in less than one year	$ 1,002	$1,001

Interest income from marketable securities was $3 and $30 during the three months ended June 30, 2018 and 2017, respectively, and $15 and $61 during the six months ended June 30, 2018 and 2017, respectively.

(5) Stockholder's Equity

(a) Stock Equity and Incentive Plan

The Company recognizes stock-based compensation in accordance with the provisions of ASC Topic 718, Compensation-Stock Compensation. Stock-based compensation expense, excluding compensation charges related to our employee stock purchase plan, or the ESPP, was $725 and $849 for the three months ended June 30, 2018 and 2017, respectively, and $1,568 and $1,792 for the six months ended June 30, 2018 and 2017, respectively. As of June 30, 2018, there was $2,861 of total unrecognized compensation expense related to stock options, which is expected to be recognized over a weighted-average period of 3.14 years. As of June 30, 2018, there was $4,232 of total unrecognized compensation expense related to restricted stock awards, which is expected to be recognized over a weighted-average period of 2.56 years.

Stock Options

During the three months ended June 30, 2018, 13 stock options were exercised for common stock. Additionally, during the three months ended June 30, 2018, 401 stock options were granted and 76 stock options expired, were canceled or were forfeited.

During the six months ended June 30, 2018, 13 stock options were exercised for common stock, none of which was delivered to the Company as payment for the exercise price or related minimum tax withholding obligations. Additionally, during the six months ended June 30, 2018, 401 stock options were granted with a weighted average grant date fair value of $3.82 per share and 87 stock options expired, were canceled or were forfeited. The Company has estimated the fair value of each option grant on the date of grant using the Black-Scholes option-pricing model. The weighted average assumptions utilized to determine the fair value of options granted during the six months ended June 30, 2018 and 2017 were as follows:

	Six Months Ended June 30,	
	2018	2017
Risk-free interest rate	2.81 %	1.96 %
Expected volatility	36.60 %	35.53 %
Expected life (in years)	4.29	4.22
Dividend yield	0 %	0 %

As of June 30, 2018, there were 1,368 options outstanding with a weighted average exercise price of $10.37 per share and 395 options exercisable with a weighted average exercise price of $11.10 per share.

Restricted Stock

During the three months ended June 30, 2018, 134 shares of restricted stock were granted with a weighted average grant date fair value of $11.30 per share and 15 shares of restricted stock were forfeited. Additionally, during the three months ended June 30, 2018, 49 shares of restricted stock vested, of which no shares of common stock were surrendered to the Company as payment by employees in lieu of cash to satisfy minimum tax withholding obligations in connection with the vesting of restricted stock.

During the six months ended June 30, 2018, 154 shares of restricted stock were granted with a weighted average grant date fair value of $11.13 per share and 19 shares of restricted stock were forfeited. Additionally, during the six months ended June 30, 2018, 237 shares of restricted stock vested, of which no shares of common stock were surrendered to the Company as payment by employees in lieu of cash to satisfy minimum tax withholding obligations in connection with the vesting of restricted stock and these shares were immediately retired.

As of June 30, 2018, there were 503 shares of restricted stock outstanding still subject to service-based vesting conditions.

As of June 30, 2018, the Company had no shares of restricted stock that were subject to performance-based or market-based vesting conditions.

(b) Employee Stock Purchase Plan

The Company's Amended and Restated 1996 Employee Stock Purchase Plan (ESPP) affords eligible employees the right to purchase common stock, via payroll deductions, through various offering periods at a purchase price equal to 85% of the fair market value of the common stock on the first or last day of the offering period, whichever is lower. During the three and six months ended June 30, 2018, no shares were issued under the ESPP plan. During the three and six months ended June 30, 2017, 26 and 26 shares were issued under the ESPP plan, respectively. The Company recorded compensation charges related to the ESPP of $14 and $3 for the three months ended June 30, 2018 and 2017, respectively, and $24 and $20 for the six months ended June 30, 2018 and 2017, respectively.

(c) Stock-Based Compensation Expense

The following table presents stock-based compensation expense, including expense for the ESPP, in the Company's consolidated statements of operations for the three and six months ended June 30, 2018 and 2017:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Cost of product sales	$11	$72	$82	$154
Cost of service sales	—	1	—	1
Research and development	149	170	319	359
Sales, marketing and support	166	221	347	489
General and administrative	413	388	844	809
	$739	$852	$1,592	$1,812

(d) Accumulated Other Comprehensive Loss

Comprehensive income (loss) includes net income (loss), unrealized gains and losses from foreign currency translation, unrealized gains and losses from available for sale marketable securities and changes in fair value related to interest rate swap derivative instruments, net of tax attributes, which were not material. The components of the Company's comprehensive income (loss) and the effect on earnings for the periods presented are detailed in the accompanying consolidated statements of comprehensive income (loss).

The balances for the three months ended June 30, 2018 and 2017 are as follows:

	Foreign Currency Translation	Unrealized Gain (Loss) on Available for Sale Marketable Securities	Interest Rate Swaps	Total Accumulated Other Comprehensive Loss
Balance, March 31, 2018	$ (8,803)	$ —	$ (47)	$ (8,850)
Other comprehensive (loss) income before reclassifications	(3,866)	—	3	(3,863)
Amounts reclassified from AOCI to Other income, net	—	—	12	12
Net other comprehensive (loss) income, June 30, 2018	(3,866)	—	15	(3,851)
Balance, June 30, 2018	$ (12,669)	$ —	$ (32)	$ (12,701)

	Foreign Currency Translation	Unrealized Gain (Loss) on Available for Sale Marketable Securities	Interest Rate Swaps	Total Accumulated Other Comprehensive Loss
Balance, March 31, 2017	$ (16,050)	$ —	$ (131)	$ (16,181)
Other comprehensive income (loss) before reclassifications	2,440	(3)	(1)	2,436
Amounts reclassified from AOCI to Other income, net	—	—	19	19
Net other comprehensive income (loss), June 30, 2017	2,440	(3)	18	2,455
Balance, June 30, 2017	$ (13,610)	$ (3)	$ (113)	$ (13,726)

12

The balances for the six months ended June 30, 2018 and 2017 are as follows:

	Foreign Currency Translation	Unrealized Gain (Loss) on Available for Sale Marketable Securities	Interest Rate Swaps	Total Accumulated Other Comprehensive Loss
Balance, December 31, 2017	$ (11,247)	$ (1)	$ (69)	$ (11,317)
Other comprehensive (loss) income before reclassifications	(1,422)	1	10	(1,411)
Amounts reclassified from AOCI to Other income, net	—	—	27	27
Net other comprehensive (loss) income, June 30, 2018	(1,422)	1	37	(1,384)
Balance, June 30, 2018	$ (12,669)	$ —	$ (32)	$ (12,701)

	Foreign Currency Translation	Unrealized Gain (Loss) on Available for Sale Marketable Securities	Interest Rate Swaps	Total Accumulated Other Comprehensive Loss
Balance, December 31, 2016	$ (16,651)	$ —	$ (158)	$ (16,809)
Other comprehensive income (loss) before reclassifications	3,041	(3)	4	3,042
Amounts reclassified from AOCI to Other income, net	—	—	41	41
Net other comprehensive income (loss), June 30, 2017	3,041	(3)	45	3,083
Balance, June 30, 2017	$ (13,610)	$ (3)	$ (113)	$ (13,726)

For additional information, see Note 4, "Marketable Securities," and Note 17, "Derivative Instruments and Hedging Activities."

(6) Net Loss per Common Share

Basic net loss per share is calculated based on the weighted average number of common shares outstanding during the period. Diluted net loss per share incorporates the dilutive effect of common stock equivalent options, warrants and other convertible securities, if any, as determined with the treasury stock accounting method. For the three and six months ended June 30, 2018, since there was a net loss, the Company excluded all 634 and 805, respectively, in outstanding stock options and non-vested restricted shares from its diluted loss per share calculation, as inclusion of these securities would have reduced the net loss per share. For the three and six months ended June 30, 2017, since there was a net loss, the Company excluded all 1,207 and 960, respectively, in outstanding stock options and non-vested restricted shares from its diluted loss per share calculation, as inclusion of these securities would have reduced the net loss per share.

A reconciliation of the basic and diluted weighted average common shares outstanding is as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Weighted average common shares outstanding—basic	17,140	16,446	16,942	16,354
Dilutive common shares issuable in connection with stock plans	—	—	—	—
Weighted average common shares outstanding—diluted	17,140	16,446	16,942	16,354

(7) Inventories

Inventories are stated at the lower of cost and net realizable value using the first-in first-out costing method. Inventories as of June 30, 2018 and December 31, 2017 include the costs of material, labor, and factory overhead. Components of inventories consist of the following:

	June 30, 2018	December 31, 2017
Raw materials	$13,387	$ 13,347
Work in process	2,812	2,137
Finished goods	6,713	7,248
	$22,912	$ 22,732

(8) Property and Equipment

Property and equipment, net, as of June 30, 2018 and December 31, 2017 consist of the following:

	June 30, 2018	December 31, 2017
Land	$3,828	$3,828
Building and improvements	24,082	24,038
Leasehold improvements	473	429
Machinery and equipment	24,958	24,764
Revenue-generating assets	37,246	28,453
Office and computer equipment	13,527	13,057
Motor vehicles	51	51
	104,165	94,620
Less accumulated depreciation	(54,096)	(51,099)
	$50,069	$43,521

Depreciation expense was $2,192 and $1,614 for the three months ended June 30, 2018 and 2017, respectively, and $4,145 and $3,307 for the six months ended June 30, 2018 and 2017, respectively.

Certain revenue-generating hardware assets are utilized by the Company in the delivery of the Company's airtime services, media, and other content. These revenue-generating assets were previously included in machinery and equipment and are now presented separately.

(9) Product Warranty

The Company's products carry standard limited warranties that range from one to two years and vary by product. The warranty period begins on the date of retail purchase or lease by the original purchaser. The Company accrues estimated product warranty costs at the time of sale and any additional amounts are recorded when such costs are probable and can be reasonably estimated. Factors that affect the Company's warranty liability include the number of units sold or leased, historical and anticipated rates of warranty repairs and the cost per repair. Warranty and related costs are reflected within sales, marketing and support in the accompanying consolidated statements of operations. As of June 30, 2018 and December 31, 2017, the Company had accrued product warranty costs of $2,039 and $2,074, respectively.

The following table summarizes product warranty activity during 2018 and 2017:

	Six Months Ended June 30, 2018	2017
Beginning balance	$2,074	$2,280
Charges to expense	1,156	500
Costs incurred	(1,191)	(373)
Ending balance	$2,039	$2,407

(10) Debt

Long-term debt consisted of the following:

	June 30, 2018	December 31, 2017
Term note	$40,875	$ 44,275
Mortgage loan	2,690	2,779
Total	43,565	47,054
Less amounts classified as current	4,990	2,482
Long-term debt, excluding current portion	$38,575	$ 44,572

Term Note and Line of Credit

On July 1, 2014, the Company entered into (i) a five-year senior credit facility agreement (the Credit Agreement) with Bank of America, N.A., as Administrative Agent, and the lenders named from time to time as parties thereto (the Lenders), for an aggregate amount of up to $80,000, including a revolving credit facility (the Revolver) of up to $15,000 and a term loan (Term Loan) of $65,000 to be used for general corporate purposes, including both (A) the refinancing of the Company's $30,000 then-outstanding indebtedness under its previous credit facility and (B) permitted acquisitions, (ii) revolving credit notes (together, the Revolving Credit Note) to evidence the Revolver, (iii) term notes (together, the Term Note, and together with the Revolving Credit Note, the Notes) to evidence the Term Loan, (iv) a Security Agreement (the Security Agreement) required by the Lenders with respect to the grant by the Company of a security interest in substantially all of the assets of the Company in order to secure the obligations of the Company under the Credit Agreement and the Notes, and (v) Pledge Agreements (the Pledge Agreements) required by the Lenders with respect to the grant by the Company of a security interest in 65% of the capital stock of each of KVH Industries A/S and KVH Industries U.K. Limited held by the Company in order to secure the obligations of the Company under the Credit Agreement and the Notes.

The Credit Agreement was most recently amended in March 2017 to modify the Maximum Consolidated Leverage Ratio, the Applicable Rate, the Consolidated Fixed Charge Coverage Ratio and the amortization schedule of the Term Loan, as well as to make certain other changes. The amendment was accounted for as a debt modification as it did not result in a significant modification to the Credit Agreement.

In connection with the March 2017 amendment, the Company made an additional principal repayment of $6,000 on the Term Note and amended the repayment terms. Under the amended terms, the Company must make principal repayments of $575 every three months starting on April 1, 2017 until the Term Note maturity on July 1, 2019. On the maturity date, the entire remaining principal balance of the loan, including any future loans under the Revolver, is due and payable, together with all accrued and unpaid interest, penalties, and any other amounts due and payable under the Credit Agreement. The Credit Agreement contains provisions requiring the mandatory prepayment of amounts outstanding under the Term Loan and the Revolver under specified circumstances, including (i) 100% of the net cash proceeds from certain dispositions to the extent not reinvested in the Company's business within a stated period, (ii) 50% of the net cash proceeds from stated equity issuances and (iii) 100% of the net cash proceeds from certain receipts of more than $250 outside the ordinary course of business. The prepayments are first applied to the Term Loan, in inverse order of maturity, and then to the Revolver. In the discretion of the Administrative Agent, certain mandatory prepayments made on the Revolver can permanently reduce the amount of credit available under the Revolver.

As required by the Credit Agreement, the Company used 50% of the net cash proceeds of its $4,500 private placement of treasury stock to SKY Perfect JSAT Corporation on February 28, 2018 to prepay $2,250 of indebtedness under the Term Loan.

Loans under the Credit Agreement bear interest at varying rates determined in accordance with the Credit Agreement. Each LIBOR Rate Loan, as defined in the Credit Agreement, bears interest on the outstanding principal amount thereof for each interest period from the applicable borrowing date at a rate per annum equal to the LIBOR Daily Floating Rate or LIBOR Monthly Floating Rate, each as defined in the Credit Agreement, as applicable, plus the Applicable Rate, as defined in the Credit Agreement, and each Base Rate Loan, as defined in the Credit Agreement, bears interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the Base Rate, as defined in the Credit Agreement, plus the Applicable Rate. The Applicable Rate ranges from 1.75% to 2.25%, depending on the Company's Consolidated Leverage Ratio, as defined in the Credit Agreement. The highest Applicable Rate applies when the Consolidated Leverage Ratio exceeds 1.50:1.00. Upon certain defaults, including failure to make payments when due, interest becomes payable at a higher default rate.

Borrowings under the Revolver are subject to the satisfaction of numerous conditions precedent at the time of each borrowing, including the continued accuracy of the Company's representations and warranties and the absence of any default under the Credit Agreement. As of June 30, 2018, there were no borrowings outstanding under the Revolver and the full balance of $15,000 was available for borrowing.

The Credit Agreement contains two financial covenants, a Maximum Consolidated Leverage Ratio and a Minimum Consolidated Fixed Charge Coverage Ratio, each as defined in the Credit Agreement. The Maximum Consolidated Leverage Ratio may not be greater than 1.50:1.00. The Minimum Consolidated Fixed Charge Coverage Ratio may not be less than 1.25:1.00. In the March 2017 amendment, the definition of the Consolidated Fixed Charge Coverage Ratio was amended to include only maintenance capital expenditures as defined. The Company was in compliance with these financial ratio debt covenants as of June 30, 2018.

The Credit Agreement imposes certain other affirmative and negative covenants, including without limitation covenants with respect to the payment of taxes and other obligations, compliance with laws, entry into material contracts, creation of liens, incurrence of indebtedness, investments, dispositions, fundamental changes, restricted payments, changes in the nature of the Company's business, transactions with affiliates, corporate and accounting changes, and sale and leaseback arrangements.

The Company's obligation to repay loans under the Credit Agreement could be accelerated upon a default or event of default under the terms of the Credit Agreement, including certain failures to pay principal or interest when due, certain breaches of representations and warranties, the failure to comply with the Company’s affirmative and negative covenants under the Credit Agreement, a change of control of the Company, certain defaults in payment relating to other indebtedness, the acceleration of payment of certain other indebtedness, certain events relating to the liquidation, dissolution, bankruptcy, insolvency or receivership of the Company, the entry of certain judgments against the Company, certain events relating to the impairment of collateral or the Lenders' security interest therein, and any other material adverse change with respect to the Company.

Mortgage Loan

The Company has a mortgage loan (as amended, the Mortgage Loan) in the amount of $4,000 related to its headquarters facility in Middletown, Rhode Island. The loan term is ten years, with a principal amortization of 20 years. The interest rate is based on the BBA LIBOR Rate plus 2.00 percentage points. The Mortgage Loan is secured by the underlying property and improvements. The monthly mortgage payment is approximately $15, plus interest. Due to the difference in the term of the loan and amortization of the principal, a balloon payment of $2,551 is due on April 6, 2019. The loan contains one financial covenant, a Fixed Charge Coverage Ratio, which applies in the event that the Company's consolidated cash, cash equivalents and marketable securities balance falls below $25,000 at any time. As the Company's consolidated cash, cash equivalents, and marketable securities balance was above the minimum threshold throughout the six months ended June 30, 2018, the Fixed Charge Coverage Ratio did not apply.

Under the Mortgage Loan, the Company may prepay its outstanding loan balance subject to certain early termination charges. If the Company were to default on the Mortgage Loan, the underlying property and improvements would be used as collateral. As discussed in Note 17 to the consolidated financial statements, the Company entered into two interest rate swap agreements that are intended to hedge its mortgage interest obligations over the term of the Mortgage Loan by fixing the interest rates specified in the Mortgage Loan to 5.91% for half of the principal amount outstanding as of April 1, 2010 and 6.07% for the remaining half.

(11) Segment Reporting

The financial results of each segment are based on revenues from external customers, cost of revenue and operating expenses that are directly attributable to the segment and an allocation of costs from shared functions. These shared functions include, but are not limited to, facilities, human resources, information technology, and engineering. Allocations are made based on management’s judgment of the most relevant factors, such as head count, number of customer sites, or other operational data that contribute to the shared costs. Certain corporate-level costs have not been allocated as they are not directly attributable to either segment. These costs primarily consist of broad corporate functions, including executive, legal, finance, and costs associated with corporate actions. Segment-level asset information has not been provided as such information is not reviewed by the chief operating decision-maker for purposes of assessing segment performance and allocating resources. There are no inter-segment sales or transactions.

The Company's performance is impacted by the levels of activity in the marine and land mobile markets and defense sectors, among others. Performance in any particular period could be impacted by the timing of sales to certain large customers.

The mobile connectivity segment primarily manufactures and distributes a comprehensive family of mobile satellite antenna products and services that provide access to television, the Internet and voice services while on the move. Product sales within the mobile connectivity segment accounted for 19% and 22% of the Company's consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 19% and 23% of the Company's consolidated net sales for the six months ended June 30, 2018 and 2017, respectively. Sales of mini-VSAT Broadband airtime service accounted for 40% and 41% of the Company's consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 40% and 40% of the Company's consolidated net sales for the six months ended June 30, 2018 and 2017, respectively. Sales of content and training services within the mobile connectivity segment accounted for 18% and 20% of the Company's consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 18% and 20% of the Company's consolidated net sales for the six months ended June 30, 2018 and 2017, respectively.

The inertial navigation segment manufactures and distributes a portfolio of digital compass and fiber optic gyro (FOG)-based systems that address the rigorous requirements of military and commercial customers and provide reliable, easy-to-use and continuously available navigation and pointing data. The principal product categories in this segment include the FOG-based inertial measurement units (IMUs) for precision guidance, FOGs for tactical navigation as well as pointing and stabilization systems, and digital compasses that provide accurate heading information for demanding applications, security, automation and access control equipment and systems. Sales of FOG-based guidance and navigation systems within the inertial navigation segment accounted for 15% and 12% of the Company's consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 14% and 11% of the Company's consolidated net sales for the six months ended June 30, 2018 and 2017, respectively.

No other single product class accounts for 10% or more of the Company's consolidated net sales.

The Company operates in a number of major geographic areas across the globe. The Company generates international net sales, based upon customer location, primarily from customers located in Canada, Europe, Africa, Asia/Pacific, the Middle East, and India. International revenues represented 60% and 62% of the Company's consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 59% and 61% of the Company's consolidated net sales for the six months ended June 30, 2018 and 2017, respectively. No individual foreign country represented 10% or more of the Company's consolidated net sales for the three months ended June 30, 2018 and 2017. No individual foreign country represented 10% or more of the Company's consolidated net sales for the six months ended June 30, 2018 or 2017.

As of June 30, 2018 and December 31, 2017, the long-lived tangible assets related to the Company’s international subsidiaries were less than 10% of the Company’s long-lived tangible assets and were deemed not material.

Net sales and operating income (loss) for the Company's reporting segments and the Company's loss before income tax expense for the three and six months ended June 30, 2018 and 2017 were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Net sales:				
Mobile connectivity	$33,764	$34,034	$66,513	$68,321
Inertial navigation	9,628	6,415	16,980	12,339
Consolidated net sales	$43,392	$40,449	$83,493	$80,660
Operating income (loss):				
Mobile connectivity	$1,149	$2,638	$2,221	$3,260
Inertial navigation	1,564	362	1,898	318
Subtotal	2,713	3,000	4,119	3,578
Unallocated, net	(3,900)	(4,368)	(8,486)	(9,416)
Loss from operations	(1,187)	(1,368)	(4,367)	(5,838)
Net interest and other income (expense)	173	(302)	(362)	(557)
Loss before income tax expense	$(1,014)	$(1,670)	(4,729)	$(6,395)

Depreciation expense and amortization expense for the Company's segments are presented in the following table for the periods presented:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Depreciation expense:				
Mobile connectivity	$1,810	$1,394	$3,370	$2,872
Inertial navigation	254	199	506	395
Unallocated	128	21	269	40
Total consolidated depreciation expense	$2,192	$1,614	$4,145	$3,307
Amortization expense:				
Mobile connectivity	$1,046	$1,102	$2,143	$2,170
Inertial navigation	—	—	—	—
Unallocated	—	—	—	—
Total consolidated amortization expense	$1,046	$1,102	$2,143	$2,170

19

(12) Legal Matters

From time to time, the Company is involved in litigation incidental to the conduct of its business. In the ordinary course of business, the Company is a party to inquiries, legal proceedings and claims including, from time to time, disagreements with vendors and customers. The Company is not a party to any lawsuit or proceeding that, in management's opinion, is likely to materially harm the Company's business, results of operations, financial condition, or cash flows.

(13) Share Buyback Program

On November 26, 2008, the Company’s Board of Directors authorized a program to repurchase up to 1,000 shares of the Company’s common stock. As of June 30, 2018, 341 shares of the Company’s common stock remain available for repurchase under the authorized program. The repurchase program is funded using the Company’s existing cash, cash equivalents, marketable securities and future cash flows. Under the repurchase program, the Company, at management’s discretion, may repurchase shares on the open market from time to time, in privately negotiated transactions or block transactions, or through an accelerated repurchase agreement. The timing of such repurchases depends on availability of shares, price, market conditions, alternative uses of capital, and applicable regulatory requirements. The program may be modified, suspended or terminated at any time without prior notice. The repurchase program has no expiration date. There were no other repurchase programs outstanding during the six months ended June 30, 2018 and no repurchase programs expired during the period.

During the six months ended June 30, 2018 and 2017, the Company did not repurchase any shares of its common stock.

(14) Fair Value Measurements

ASC Topic 820, Fair Value Measurements and Disclosures (ASC 820), provides a framework for measuring fair value and requires expanded disclosures regarding fair value measurements. ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. ASC 820 describes three levels of inputs that may be used to measure fair value:

Level 1:	Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities. The Company’s Level 1 assets are investments in money market mutual funds and certificates of deposit.
Level 2:	Quoted prices for similar assets or liabilities in active markets; or observable prices that are based on observable market data, based on directly or indirectly market-corroborated inputs. The Company’s Level 2 liabilities are interest rate swaps.
Level 3:	Unobservable inputs that are supported by little or no market activity, and are developed based on the best information available given the circumstances. The Company has no Level 3 assets.

Assets and liabilities measured at fair value are based on the valuation techniques identified in the table below. The valuation techniques are:

(a) Market approach—prices and other relevant information generated by market transactions involving identical or comparable assets.

(b) The valuations of the interest rate swaps intended to mitigate the Company's interest rate risk are determined with the assistance of a third-party financial institution using widely accepted valuation techniques, including discounted cash flow analysis on the expected cash flows of each instrument. This analysis utilizes observable market-based inputs, including interest rate curves and interest rate volatility, and reflects the contractual terms of these instruments, including the period to maturity.

The following tables present financial assets and liabilities at June 30, 2018 and December 31, 2017 for which the Company measures fair value on a recurring basis, by level, within the fair value hierarchy:

June 30, 2018	Total	Level 1	Level 2	Level 3	Valuation Technique
Assets					
Money market mutual funds	$335	$335	$ —	$ —	(a)
Liabilities					
Interest rate swaps	32	—	32	—	(b)

December 31, 2017	Total	Level 1	Level 2	Level 3	Valuation Technique
Assets					
Money market mutual funds	$7,318	$7,318	$ —	$ —	(a)
Certificates of deposit	1,001	1,001	—	—	(a)
Liabilities					
Interest rate swaps	69	—	69	—	(b)

Certain financial instruments are carried at cost on the consolidated balance sheets, which approximates fair value due to their short-term, highly liquid nature. These instruments include cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses. The carrying amount of the Company's debt approximates fair value based on currently available quoted rates of similarly structured debt.

Assets Measured and Recorded at Fair Value on a Nonrecurring Basis

The Company's non-financial assets, such as goodwill, intangible assets, and other long-lived assets resulting from business combinations, are measured at fair value using income approach valuation methodologies at the date of acquisition and subsequently re-measured if an impairment exists. There were no impairments of the Company's non-financial assets noted as of June 30, 2018. The Company does not have any liabilities that are recorded at fair value on a non-recurring basis.

(15) Goodwill and Intangible Assets

Goodwill

The following table sets forth the changes in the carrying amount of goodwill for the six months ended June 30, 2018:

	Amounts
Balance at December 31, 2017	$33,872
Foreign currency translation adjustment	(635)
Balance at June 30, 2018	$33,237

In January 2017, the Company early adopted ASC Update No. 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test of Goodwill Impairment. ASC 350 requires the completion of a goodwill impairment test at least annually based on either an optional qualitative assessment or the first step of comparing the carrying value of a reporting unit to its estimated fair value as of the test date. Any impairment charges would be based on the first step. The Company now performs its annual goodwill impairment test as of October 1st. During the three months ended December 31, 2017, the Company changed its annual impairment assessment date from August 31st to October 1st to better align the timing of the test date with its annual budgeting cycle. In connection with the change in the date of its annual goodwill impairment test, the Company performed a goodwill impairment test as of both August 31, 2017 and October 1, 2017, and concluded that the fair values of its reporting units exceeded their respective carrying values. The Company notes that, as of August 31, 2017, the fair value of all of the Company's reporting units exceeded their carrying values by more than 10%. For the October 1, 2017 test, the Company performed a qualitative assessment over goodwill impairment concluding it was more-likely-than-not that its reporting units fair value exceeded their carrying value. Accordingly, it was not necessary for the Company to perform the full Step 1 quantitative analysis. To date, the Company has not had accumulated goodwill impairment losses. A negative trend of operating results or material changes to forecasted operating results could result in the requirement for additional interim goodwill impairment tests and the potential of a future goodwill impairment charge, which could be material.

Intangible Assets

The changes in the carrying amount of intangible assets during the six months ended June 30, 2018 are as follows:

	Amounts
Balance at December 31, 2017	$15,120
Amortization expense	(2,143)
Foreign currency translation adjustment	(234)
Balance at June 30, 2018	$12,743

Intangible assets arose from an acquisition made prior to 2013, the acquisition of KVH Media Group (acquired as Headland Media Limited) in May 2013 and the acquisition of Videotel in July 2014. Intangibles arising from the acquisition made prior to 2013 are being amortized on a straight-line basis over an estimated useful life of 7 years. Intangibles arising from the acquisition of KVH Media Group are being amortized on a straight-line basis over the estimated useful life of: (i) 10 years for acquired subscriber relationships, (ii) 15 years for distribution rights, (iii) 3 years for internally developed software and (iv) 2 years for proprietary content. Intangibles arising from the acquisition of Videotel are being amortized on a straight-line basis over the estimated useful life of: (i) 8 years for acquired subscriber relationships, (ii) 5 years for favorable leases, (iii) 4 years for internally developed software and (iv) 5 years for proprietary content. The intangibles arising from the KVH Media Group and Videotel acquisitions were recorded in pounds sterling and fluctuations in exchange rates could cause these amounts to increase or decrease from time to time.

In January 2017, the Company completed the acquisition of certain subscriber relationships from a third party. This acquisition did not meet the definition of a business under ASC 2017-01, Business Combinations (Topic 805)-Clarifying the Definition of a Business, which the Company adopted on October 1, 2016. The Company ascribed $100 of the initial purchase price to the acquired subscriber relationships definite-lived intangible assets with an initial estimated useful life of 10 years. Under the asset purchase agreement, the purchase price includes a component of contingent consideration under which the Company is required to pay a percentage of recurring revenues received from the acquired subscriber relationships through 2026 up to a maximum annual payment of $114. As of June 30, 2018, the carrying value of the intangible assets acquired in the asset acquisition was $133. As the acquisition did not represent a business combination, the contingent consideration arrangement is recognized only when the contingency is resolved and the consideration is paid or becomes payable. The amounts payable under the contingent consideration arrangement, if any, will be included in the measurement of the cost of the acquired subscriber relationships. During the six months ended June 30, 2018, no additional consideration was earned under the contingent consideration arrangement.

Acquired intangible assets are subject to amortization. The following table summarizes acquired intangible assets at June 30, 2018 and December 31, 2017, respectively:

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value
June 30, 2018			
Subscriber relationships	$ 17,750	$ 9,371	$ 8,379
Distribution rights	4,328	1,595	2,733
Internally developed software	2,327	2,327	—
Proprietary content	8,206	6,697	1,509
Intellectual property	2,284	2,284	—
Favorable lease	647	525	122
	$ 35,542	$ 22,799	$ 12,743
December 31, 2017			
Subscriber relationships	$ 17,912	$ 8,347	$ 9,565
Distribution rights	4,385	1,450	2,935
Internally developed software	2,324	2,206	118
Proprietary content	8,223	5,908	2,315
Intellectual property	2,284	2,284	—
Favorable lease	648	461	187
	$ 35,776	$ 20,656	$ 15,120

Amortization expense related to intangible assets for the three and six months ended June 30, 2018 and 2017 was as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
Expense Category	2018	2017	2018	2017
Cost of service sales	$ 390	$ 367	$ 789	$ 722
General and administrative expense	656	735	1,354	1,448
Total amortization expense	$ 1,046	$ 1,102	$ 2,143	$ 2,170

As of June 30, 2018, the total weighted average remaining useful lives of the definite-lived intangible assets was 3.8 years and the weighted average remaining useful lives by the definite-lived intangible asset category are as follows:

Intangible Asset	Weighted Average Remaining Useful Life in Years
Subscriber relationships	4.4
Distribution rights	9.8
Proprietary content	1.0
Favorable lease	1.0

23

Estimated future amortization expense remaining at June 30, 2018 for intangible assets acquired is as follows:

Remainder of 2018	$1,940
2019	3,057
2020	2,244
2021	2,244
2022	1,472
Thereafter	1,786
Total future amortization expense	$12,743

For intangible assets, the Company assesses the carrying value of these assets whenever events or circumstances indicate that the carrying value may not be recoverable. Recoverability of assets to be held and used is measured by comparing the carrying amount of an asset, or asset group, to the future undiscounted cash flows expected to be generated by the asset, or asset group. There were no events or changes in circumstances during the second quarter of 2018 which indicated that an assessment of the impairment of goodwill and intangible assets was required.

(16) Revenue from Contracts with Customers (ASC 606)

The Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all contracts not completed as of the date of adoption. The reported results for the three and six months ended June 30, 2018 reflect the application of ASC 606 guidance while the reported results for the three and six months ended June 30, 2017 were prepared under the guidance of ASC 605, Revenue Recognition (ASC 605), which is also referred to herein as "legacy GAAP" or the "previous guidance". The adoption of ASC 606 represents a change in accounting principle that is expected to more closely align revenue recognition with the delivery of the Company's products and services and is expected to provide financial statement readers with enhanced disclosures. In accordance with ASC 606, revenue is recognized when a customer obtains control of promised products and services. The amount of revenue recognized reflects the consideration to which the Company expects to be entitled to receive in exchange for these products and services. To achieve this core principle, the Company applies the following five steps:

1) Identify the contract with a customer

A contract with a customer exists when (i) the Company enters into an enforceable contract with a customer that defines each party’s rights regarding the products and services to be transferred and identifies the payment terms related to these products and services, (ii) the contract has commercial substance and, (iii) the Company determines that collection of substantially all consideration for products and services that are transferred is probable based on the customer’s intent and ability to pay the promised consideration. The Company applies judgment in determining the customer’s ability and intention to pay, which is based on a variety of factors, including the customer’s historical payment pattern or, in the case of a new customer, published credit and financial information pertaining to the customer.

2) Identify the performance obligations in the contract

Performance obligations promised in a contract are identified based on the products and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the product and service either on its own or together with other resources that are readily available from third parties or from the Company, and are distinct in the context of the contract, whereby the transfer of the product and service is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised products and services, the Company must apply judgment to determine whether promised products and services are capable of being distinct and distinct in the context of the contract. If these criteria are not met the promised products and services are accounted for as a combined performance obligation.

3) Determine the transaction price

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring products and services to the customer. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing either the expected value method or the most likely amount method depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in the Company’s judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. None of the Company's contracts as of June 30, 2018 contained a significant financing component. Determining the transaction price requires significant judgment, which is discussed by revenue category in further detail below.

4) Allocate the transaction price to performance obligations in the contract

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. However, if a series of distinct products or services that are substantially the same qualifies as a single performance obligation in a contract with variable consideration, the Company must determine if the variable consideration is attributable to the entire contract or to a specific part of the contract. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price basis unless the transaction price is variable and meets the criteria to be allocated entirely to a performance obligation or to a distinct product or service that forms part of a single performance obligation. The Company determines standalone selling price based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, the Company estimates the standalone selling price taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations.

5) Recognize revenue when or as the Company satisfies a performance obligation

The Company satisfies performance obligations either over time or at a point in time as discussed in further detail below. Revenue is recognized at the time the related performance obligation is satisfied by transferring a promised product or service to a customer.

Disaggregation of Revenue

The following table summarizes net sales from contracts with customers for the three and six months ended June 30, 2018:

	Three Months Ended	Six Months Ended
	June 30, 2018	
Mobile connectivity product, transferred at point in time	$6,731	$13,401
Mobile connectivity product, transferred over time	1,372	2,622
Mobile connectivity service	25,661	50,490
Inertial navigation product	8,059	14,131
Inertial navigation service	1,569	2,849
Total net sales	$43,392	$83,493

For mobile connectivity product sales, the delivery of the Company’s performance obligations, and associated revenue, are generally transferred to the customer at a point in time, with the exception of certain mini-VSAT contracts which are transferred to customers over time. For mobile connectivity service sales, the delivery of the Company’s performance obligations and associated revenue are transferred to the customer over time. For inertial navigation product sales, the delivery of the Company’s performance obligations, and associated revenue, are generally transferred to the customer at a point in time. For inertial navigation service sales, the Company's performance obligations, and associated revenue, are generally transferred to customers over time.

Product sales

Revenue from product sales is recognized when control of the goods is transferred to the customer, which generally occurs at the Company’s plant or warehouse upon delivery to the carrier for shipment. Revenue related to shipping and handling is recognized when the products are shipped and the associated costs are accrued for based on the Company’s election to account for shipping and handling activities as a fulfillment of the promise to transfer the products and not as a combined promise. For certain inertial navigation product sales, customer acceptance or inspection may be required before control of the goods is transferred to the customer. For those sales, revenue is recognized after notification of customer acceptance and the goods have been delivered to the carrier for shipment. In certain circumstances customers may request a bill-and-hold arrangement. Under these bill-and-hold arrangements, revenue is recognized when the Company has fulfilled all of its performance obligations, the Company has received notification of customer acceptance of the goods, the units are segregated for the specific customer only, and the goods are ready for physical transfer to the customer in accordance with their defined contract delivery schedule.

The Company’s standard payment terms are generally Net 30. Under certain limited conditions, the Company, at its sole discretion, provides for the return of goods. No product is accepted for return and no credit is allowed on any returned product unless the Company has granted and confirmed prior written permission by means of appropriate authorization. The Company establishes reserves for potential sales returns, credits, and allowances, and evaluates, on a monthly basis, the adequacy of those reserves based upon historical experience and expectations for the future.

Contracts with multiple performance obligations

The Company sells products and services through arrangements that in certain instances bundle VSAT equipment, satellite connectivity and other services. For these arrangements, the Company has determined that the performance obligations are not distinct in the context of the contracts with certain customers, including sales-type leases on the VSAT equipment. The Company will recognize product revenue under these arrangements over the estimated satellite connectivity customer life, which is estimated to be five years based on historical evidence. For sales-type leases, interest is charged at market rates and is recognized in other income throughout the lease term, which is typically three to five years.

Satellite connectivity and media content service sales

Directly sold and re-sold satellite connectivity service for voice, data and Internet is recognized monthly based upon minutes or megabytes of traffic processed or contracted fixed fee schedules. Typically, subscribers enter into a one-year minimum service agreement. The Company has evaluated whether it obtains control of the services that are being transferred to the customer in assessing gross revenue reporting as principal verse net revenue reporting as agent for its satellite connectivity service sales and its payments to the applicable service providers. Based on the Company's assessment of the indicators, the Company has determined that gross revenue reporting as a principal is appropriate. The applicable indicators of gross revenue reporting included, but were not limited to, the following:

- The Company is the primary obligor in its arrangements with its subscribers. The Company manages all interactions with the subscribers, while satellite connectivity service providers do not interact with the subscribers. In addition, the Company assumes the entire performance risk under its arrangements with the subscribers and in the event of a performance issue, the Company may incur reductions in fees without regard for any recourse that the Company may have with the applicable satellite connective service providers.

- The Company has latitude in establishing pricing, as the pricing under its arrangements with the subscribers is negotiated through a contracting process, and has discretion on establishing pricing. The Company then separately negotiates the fees with the applicable satellite service providers.

- The Company has complete discretion in determining which satellite service providers it will contract with.

As a result, the Company has determined that it earns revenue (as a principal) from the delivery of satellite connectivity services to its subscribers and records all satellite connectivity service sales to subscribers as gross sales. All associated regulatory service fees and costs are recorded net in the consolidated financial statements.

The Company sells prepaid airtime services in the form of prepaid cards. A liability is established upon purchase equal to the cash paid for the prepaid card. The Company recognizes revenue from the prepaid services upon the use of the prepaid card by the customer. The Company does not offer refunds for unused prepaid services. Prepaid airtime services have not been a significant portion of the Company’s total sales.

Media content sales include the Company's distribution of commercially licensed news, sports, movies and music content for commercial and leisure customers in the maritime, hotel, and retail markets as well as training videos to the merchant marine market that are typically based on a contracted fixed fee schedule. The Company typically recognizes revenue from media content sales ratably over the period of the service contract.

The accounting estimates related to the recognition of satellite connectivity and media content service sales require the Company to make assumptions about future billing adjustments for disputes with subscribers as well as unauthorized usage. The Company recognizes the monthly subscription fee as service revenue over the service delivery period. Under AgilePlans, the Company retains ownership of the hardware that it provides to these customers, who must return the hardware to KVH if they decide to terminate the service. Because KVH does not sell the hardware under AgilePlans, the Company does not recognize any product revenue when the hardware is deployed to an AgilePlans customer.

Inertial navigation service sales

The Company engages in contracts for development, production, and services activities related to standard product modification or enhancement. The Company considers the nature of these contracts and the types of products and services provided when determining the proper accounting for a particular contract. Customer and government-agency contracted engineering service and sales under development contracts are recognized primarily during the periods in which the Company performs the service or development efforts in accordance with the agreement. Services performed under these types of contracts include engineering studies, surveys, building construction, prototype development, and program management. Performance is determined principally by comparing the accumulated labor hours incurred to date with management’s estimate of the total labor hours to complete the contracted work. Incurred labor hours represent work performed, which corresponds with and best depicts the transfer of control to the customer. This continuous transfer of control to the customer is supported by clauses in the contract that allow the customer to unilaterally terminate the contract for convenience, pay the Company for costs incurred plus a reasonable profit and take control of any work in process. The Company establishes billing terms at the time project deliverables and milestones are agreed. Unbilled revenue recognized in excess of the amounts invoiced to clients are classified within the accompanying consolidated balance sheets as “accounts receivable” as the Company's right to consideration is unconditional.

Product service sales

Product service sales other than under development contracts are recognized when completed services are delivered to the customer. The Company also sells extended warranty contracts on mobile connectivity and inertial navigation products. Sales under these contracts are recognized ratably over the contract term. Product service sales including extended warranties are not a significant portion of the Company’s total sales.

Financial Statement Impact of Adopting ASC 606

The Company adopted ASC 606 using the modified retrospective method. The cumulative effect of applying the new guidance to all contracts with customers that were not completed as of January 1, 2018 was recorded as an adjustment to accumulated deficit as of the adoption date. As a result of applying the modified retrospective method to adopt the new revenue guidance, the following adjustments were made to accounts on the consolidated balance sheet as of January 1, 2018:

	As Reported December 31, 2017	Adjustments mini-VSAT Product	Adjusted January 1, 2018
Cash, cash equivalent and marketable securities	$ 42,915	$ —	$42,915
Accounts receivable, net	28,316	—	28,316
Inventories	22,732	—	22,732
Contract assets	—	3,205	3,205
Prepaid expenses and other current assets	3,816	—	3,816
Long-lived assets	92,513	—	92,513
Other non-current assets	5,927	—	5,927
Contract assets, long-term	—	5,963	5,963
Non-current deferred income tax asset	20	202	222
Total assets	$ 196,239	$ 9,370	$205,609
Accounts payable, accrued expenses, and other current liabilities	$ 36,430	—	$36,430
Deferred revenue, current	6,919	(6,919)	—
Contract liabilities	—	11,039	11,039
Long-term contract liabilities	—	7,998	7,998
Other long-term liabilities	2,653	—	2,653
Long-term debt, excluding current portion	44,572	—	44,572
Total liabilities	$ 90,574	$ 12,118	$102,692
Accumulated deficit	(4,417)	(2,748)	(7,165)
Common stock, additional paid-in capital, and accumulated other comprehensive loss	110,082	—	110,082
Total stockholders’ equity	$ 105,665	$ (2,748)	$102,917
Total liabilities and stockholders’ equity	$ 196,239	$ 9,370	$205,609

mini-VSAT Broadband

Under the previous guidance, promised products and services under certain contracts were determined to be separate units of accounting. Under ASC 606, the products and services for these contracts are not considered separate performance obligations because they are not distinct in the context of the contract. As a result, under ASC 606 this revenue will be recognized over the estimated customer's life rather than at a point in time under the previous guidance. In conjunction with the January 1, 2018 adoption of ASC 606, the Company increased its accumulated deficit by $2,748, reflecting the deferral of $12,118 in revenue and $9,370 of cost of revenues, for contracts that were not complete as of the date of adoption.

Cost to Obtain a Customer Contract

Prior to the adoption of ASC 606, the Company expensed commissions paid to internal sales representatives and external sales representatives for obtaining mini-VSAT product contracts in the period the commissions were earned.

Under ASC 606, for certain contracts in which the products and services are not considered separate performance obligation, the Company currently capitalizes these incremental costs of obtaining customer contracts and amortizes them over the estimated customer life of 5 years. The net impact of these changes to the treatment of commissions resulted in a $191 adjustment to accumulated deficit as of January 1, 2018.

Income Taxes

The adoption of ASC 606 primarily resulted in a deferment of revenue as of December 31, 2017, which in turn generated additional deferred tax assets that ultimately increased the Company's net deferred tax asset position by $203 as of January 1, 2018 related to sales made by certain international jurisdictions. As the Company fully reserves its net deferred tax assets generated in the U.S., this impact was offset by a corresponding increase to the valuation allowance.

Impact of New Revenue Guidance on Financial Statement Line Items

The following tables compare the reported consolidated balance sheet, statement of operations and cash flows, as of and for the three months ended June 30, 2018, to the pro forma amounts that would have been reported if the previous guidance had been in effect:

	As of June 30, 2018	
Balance Sheet	As reported	Pro forma as if the previous accounting guidance had been in effect
Cash, cash equivalent and marketable securities	$34,872	$34,872
Accounts receivable, net	29,837	29,837
Inventories	22,912	22,912
Contract assets	3,419	—
Prepaid expenses and other current assets	3,339	3,339
Long-lived assets	96,049	96,049
Other non-current assets	6,735	6,735
Contract assets, long-term	6,266	—
Non-current deferred income tax asset	198	21
Total assets	$203,627	$193,765
Accounts payable, accrued expenses, and other current liabilities	$38,403	$38,403
Deferred revenue, current	—	6,716
Contract liabilities	11,051	—
Long-term contract liabilities	8,374	—
Other long-term liabilities	4,793	4,793
Long-term debt, excluding current portion	38,575	38,575
Total liabilities	$101,196	$88,487
Accumulated deficit	(12,401)	(9,554)
Common stock, additional paid-in capital, and accumulated other comprehensive loss	114,832	114,832
Total stockholders’ equity	$102,431	$105,278
Total liabilities and stockholders’ equity	$203,627	$193,765

Total reported assets and reported liabilities were $9,862 and $12,709, respectively, greater than the pro forma balance sheet, which assumes that the previous guidance remained in effect as of June 30, 2018. This difference was largely due to the deferral of revenue and associated contract costs in connection with the treatment of certain mini-VSAT customer contracts in which the products and services were not distinct in the context of the contract.

29

Consolidated Statement of Operations	Three Months Ended June 30, 2018		Six Months Ended June 30, 2018	
	As reported	Pro forma as if the previous accounting guidance had been in effect	As reported	Pro forma as if the previous accounting guidance had been in effect
Sales:				
Product	$16,162	$ 16,344	$30,154	$ 30,744
Service	27,230	27,230	53,339	53,339
Net Sales	43,392	43,574	83,493	84,083
Costs and expenses:				
Costs of product sales	10,094	10,161	19,017	19,493
Costs of service sales	15,498	15,498	29,314	29,314
Research and development	3,565	3,565	7,499	7,499
Sales, marketing and support	8,494	8,536	17,435	17,476
General and administrative	6,928	6,928	14,595	14,595
Total operating expenses	44,579	44,688	87,860	88,377
Loss from operations	(1,187)	(1,114)	(4,367)	(4,294)
Other income (expense), net	173	173	(362)	(362)
Loss before income tax expense	(1,014)	(941)	(4,729)	(4,656)
Income tax expense	329	313	507	482
Net loss	$(1,343)	$ (1,254)	$(5,236)	$ (5,138)
Net loss per common share:				
Basic and diluted	$(0.08)	$ (0.07)	$(0.31)	$ (0.30)

The following paragraphs summarize the significant changes to the Company's consolidated statement of operations for the three and six months ended June 30, 2018 resulting from the adoption of ASC 606 on January 1, 2018 compared to the results the Company would have reported under the prior guidance:

- ASC 606 deferred the recognition of revenue and fulfillment costs related to mini-VSAT contracts in which the performance obligations for products and services are not distinct in the context of the contract. The deferred revenue and associated fulfillment costs will be recognized over the estimated customer life of five years. Under the previous guidance, these promised products and services were determined to be separate units of accounting, as a result of which the product revenue was recognized at the time of sale. As a result of the adoption of ASC 606, revenues and related cost of revenues were $182 and $67 lower, respectively, for the three months ended June 30, 2018 and $590 and $476 lower, respectively, for the six months ended June 30, 2018 than they would have been under legacy GAAP as a result of the adoption of ASC 606.

- ASC 606 resulted in the amortization of capitalized commission costs that were recorded as part of the cumulative effect adjustment upon adoption. Amortization of these capitalized costs to selling and marketing expenses, net of commission costs that were capitalized in the quarter, resulted in no meaningful impact on selling and marketing expenses in the quarter.

The net impact of accounting for revenue under the new guidance increased net loss by $89 and $98 for the three and six months ended June 30, 2018, respectively, with a decrease in basic and diluted loss per share of $0.01 and $0.01 for the three and six months ended June 30, 2018, respectively.

Statement of Cash Flows	Six Months Ended June 30, 2018 As reported	Pro forma as if the previous accounting guidance had been in effect
Net loss	$ (5,236)	$ (5,138)
Non cash adjustments to reconcile net loss to net cash used in operating activities	7,821	7,796
Changes in operating assets and liabilities:		
Accounts receivable and inventories	(1,856)	(1,856)
Prepaid expenses, other assets, and contract assets	(1,022)	(505)
Deferred revenue, contract liabilities, and long-term contract liabilities	527	(63)
Accounts payable, accrued compensation, warranty, other, and other long-term liabilities	(1,432)	(1,432)
Net cash used in operating activities	$ (1,198)	$ (1,198)

The adoption of ASC 606 had no impact on the Company's cash flows from operations. The aforementioned impacts resulted in offsetting shifts in cash flows throughout net loss and various changes in working capital balances.

	Contract Assets		Contract Liabilities	
	Current	Non-Current	Current	Non-Current
Balance at January 1, 2018	$3,205	$ 5,963	$11,039	$ 7,998
Balance at June 30, 2018	$3,419	$ 6,266	$11,051	$ 8,374

Revenue recognized during the three and six months ended June 30, 2018 from amounts included in deferred revenue at the beginning of the fiscal year was approximately $1,193 and $2,408, respectively.

Business and Credit Concentrations

Concentrations of risk with respect to trade accounts receivable are generally limited due to the large number of customers and their dispersion across several geographic areas. Although the Company does not foresee that credit risk associated with these receivables will deviate from historical experience, repayment is dependent upon the financial stability of those individual customers. The Company establishes allowances for potential bad debts and evaluates, on a monthly basis, the adequacy of those reserves based upon historical experience and its expectations for future collectability concerns. The Company performs ongoing credit evaluations of the financial condition of its customers and generally does not require collateral.

No single customer accounted for 10% or more of the Company's consolidated net sales for three and six months ended June 30, 2018 or 2017 or accounts receivable at June 30, 2018 or December 31, 2017.

Certain components from third parties used in the Company’s products are procured from single sources of supply. The failure of a supplier, including a subcontractor, to deliver on schedule could delay or interrupt the Company’s delivery of products and thereby materially adversely affect the Company’s revenues and operating results.

(17) Derivative Instruments and Hedging Activities

Effective April 1, 2010, in order to reduce the volatility of cash outflows that arise from changes in interest rates, the Company entered into two interest rate swap agreements. These interest rate swap agreements are intended to hedge the Company's mortgage loan related to its headquarters facility in Middletown, Rhode Island by fixing the interest rates specified in the mortgage loan to 5.9% for half of the principal amount outstanding and 6.1% for the remaining half of the principal amount outstanding as of April 1, 2010 until the mortgage loan expires on April 16, 2019. The Company does not use derivatives for speculative purposes. For a derivative that is designated as a cash flow hedge, changes in the fair value of the derivative are recognized in accumulated other comprehensive (loss) income (AOCI) to the extent the derivative is effective at offsetting the changes in the cash flows being hedged until the hedged item affects earnings. As the Company makes the required principal and interest payments under the mortgage loan and the related interest rate swaps are settled, the Company reclassifies the amounts recorded in AOCI related to the changes in the fair value of the settled interest rate swaps to earnings. To the extent there is any hedge ineffectiveness, changes in fair value relating to the ineffective portion are immediately recognized in earnings in other income (expense) in the consolidated statements of operations. The interest rate swap is recorded within accrued other liabilities on the balance sheet. The critical terms of the interest rate swaps were designed to mirror the terms of the Company's mortgage loans. The Company designated these derivatives as cash flow hedges of the variability of the LIBOR-based interest payments on principal over a nine-year period, which ends on April 1, 2019. As of June 30, 2018, the Company determined that the existence of hedge ineffectiveness, if any, was immaterial and all changes in the fair value of the interest rate caps were recorded in the consolidated statements of comprehensive (loss) income as a component of AOCI.

As of June 30, 2018, the Company had the following outstanding interest rate derivatives that were designated as cash flow hedges of interest rate risk:

Interest Rate Derivatives	Notional (in thousands)	Asset (Liability)	Effective Date	Maturity Date	Index	Strike Rate
Interest rate swap	$ 1,345	$ (15)	April 1, 2010	April 1, 2019	1-month LIBOR	5.91 %
Interest rate swap	$ 1,345	$ (17)	April 1, 2010	April 1, 2019	1-month LIBOR	6.07 %

As of December 31, 2017, the Company had the following outstanding interest rate derivatives that were designated as cash flow hedges of interest rate risk:

Interest Rate Derivatives	Notional (in thousands)	Asset (Liability)	Effective Date	Maturity Date	Index	Strike Rate
Interest rate swap	$ 1,389	$ (33)	April 1, 2010	April 1, 2019	1-month LIBOR	5.91 %
Interest rate swap	$ 1,389	$ (36)	April 1, 2010	April 1, 2019	1-month LIBOR	6.07 %

(18) Income Taxes

The Company's effective tax rate for the three and six months ended June 30, 2018 was (32.4)% and (10.7)%, respectively, compared with (21.3)% and (8.1)% for the corresponding periods in the prior year, respectively. The effective income tax rates are based on estimated income for the year, the estimated composition of the income in different jurisdictions and discrete adjustments, if any, in the applicable periods, including retroactive changes in tax legislation, settlements of tax audits or assessments, the resolution or identification of tax position uncertainties and acquisitions of other companies.

For both the three and six months ended June 30, 2018 and 2017, the effective tax rates were lower than the statutory tax rate primarily due to the Company maintaining a valuation allowance reserve on its US deferred tax assets and to the composition of income from foreign jurisdictions that were taxed at lower rates.

The 2017 Tax Cuts and Jobs Act (the “Tax Act”), which was signed into law on December 22, 2017, has resulted in significant changes to the U.S. corporate income tax system. These changes include a federal statutory rate reduction from 35% to 21%, the elimination or reduction of certain domestic deductions and credits and limitations on the deductibility of interest expense and executive compensation. The 2017 Tax Act also transitions international taxation from a worldwide system to a modified territorial system and includes base erosion prevention measures on non-U.S. earnings, which has the effect of subjecting certain earnings of our foreign subsidiaries to U.S. taxation as global intangible low-taxed income (GILTI).

The Securities and Exchange Commission released Staff Accounting Bulletin (SAB) No. 118 to provide guidance to companies on how to implement the accounting and disclosure changes as a result of the Tax Act. The SEC staff guidance has recognized that, due to the complexity and timing of the release of the Tax Act, the accounting for this change in the law may be incomplete upon issuance of a company's financial statements for the reporting period in which the Tax Act was enacted. SAB No. 118 states that if a company can determine a reasonable estimate for the effects of the Tax Act then this estimate can be included in the financial statements. The Company made a preliminary estimate of the Transition Toll Tax and the remeasurement of our deferred tax assets and liabilities as of December 31, 2017. The preliminary estimate is subject to change as we finalize our analysis and as interpretations of the provisions of the 2017 Tax Act continue to develop. The final determination of the Transition Toll Tax and the remeasurement of our deferred tax assets and liabilities will be completed as additional information becomes available, but no later than one year from the enactment of the 2017 Tax Act. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the 2017 Tax Act may require further adjustments and changes in our estimates, which could have a material adverse effect on our business, results of operations, financial position and cash flows. The Company has not recorded any changes to this estimate for the six months ended June 30, 2018. The Company can make an accounting policy election to either recognize deferred taxes for temporary differences expected to reverse as GILTI in future years or provide for the tax expense related to GILTI resulting from those items in the year the tax is incurred. As of the date of this report, the Company is still evaluating the guidance and has not made a policy election related to the treatment of the GILTI tax.

As of June 30, 2018 and December 31, 2017, the Company had reserves for uncertain tax positions of $1,444 and $1,570, respectively. The Company incurred $20 and $43 in interest and penalties for the three and six months ended June 30, 2018, respectively, which were recorded as a component of income tax expense. During the three months ended June 30, 2018, the Company recorded a reduction in reserves for uncertain tax positions of $162 as a result of a lapse of the statute of limitations. The Company estimates that it is reasonably possible that the balance of unrecognized tax benefits as of June 30, 2018 may decrease $208 in the next twelve months as a result of a lapse of statutes of limitations and settlements with taxing authorities.

The Company’s tax jurisdictions include the United States, the United Kingdom, Denmark, Cyprus, Norway, Brazil, Singapore, Belgium, the Netherlands, Hong Kong, India and Japan. In general, the statute of limitations with respect to the Company's United States federal income taxes has expired for years prior to 2014, and the relevant state and foreign statutes vary. However, preceding years remain open to examination by United States federal and state and foreign taxing authorities to the extent of future utilization of net operating losses and research and development tax credits generated in each preceding year.

(19) Capital Lease

During the first quarter of 2018, the Company entered into a five-year capital lease for three satellite hubs for its HTS network. As of June 30, 2018, the gross costs and accumulated depreciation associated with this lease are included in revenue generating assets and amounted to $3,068 and $188, respectively. Property and equipment under capital leases are stated at the present value of minimum lease payments.

The property and equipment held under this capital lease are amortized on a straight line basis over the seven-year estimated useful life of the asset, since the lease meets the bargain purchase option criteria. Amortization of assets held under capital leases is included within depreciation expense. Depreciation expense for these capital assets was $110 and $188 for the three and six months ended June 30, 2018, respectively.

The future minimum capital lease payments under this capital lease as of June 30, 2018 are:

Remainder of 2018	$312
2019	624
2020	624
2021	624
2022	624
2023	45
Total minimum lease payments	$2,853
Less amount representing interest (1.53%)	$(42)
Present value of net minimum capital lease payments	$2,811
Less current installments of obligation under accrued other	$608
Obligations under other long-term liabilities, excluding current installments	$2,203

fITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Introduction

The statements included in this quarterly report on Form 10-Q, other than statements of historical fact, are forward-looking statements. Examples of forward-looking statements include statements regarding our future financial results, operating results, business strategies, projected costs, products and services, competitive positions and plans, customer preferences, consumer trends, anticipated product development, and objectives of management for future operations. In some cases, forward-looking statements can be identified by terminology such as "may," "will," "should," "would," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negativ terms or other comparable terminology. Any expectations based on these forward-looking statements are subject to risks and uncertainties and other important factors, including those discussed in the section entitled "Risk Factors" in Item 1A of Part II of this quarterly report on Form 10-Q and in Item 1A of Part I of our annual report on Form 10-K for the year ended December 31, 2017. These and many other factors could affect our future financial and operating results, and could cause actual results to differ materially from expectations based on forward-looking statements made in this document or elsewhere by us or on our behalf. For example, our expectations regarding certain items as a percentage of sales assume that we will achieve our anticipated sales goals. The following discussion and analysis should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this report.

Overview

We design, develop, manufacture and market mobile connectivity products and services for the marine and land mobile markets, and navigation, guidance and stabilization products for both the defense and commercial markets. We operate in two operating segments based on product lines: mobile connectivity and inertial navigation.

Mobile Connectivity Segment

Our mobile connectivity segment offers satellite communications products and services. Our mobile connectivity products enable customers to receive voice and Internet services and live digital television via satellite services in marine vessels, recreational vehicles, buses and automobiles. Our CommBox offers a range of tools designed to increase communication efficiency, reduce costs, and manage network operations. We sell and lease our mobile connectivity products through an extensive international network of dealers and distributors. We also sell and lease products directly to end users.

Our mobile connectivity service sales include sales of satellite voice and Internet airtime services, engineering services provided under development contracts, sales from product repairs, and extended warranty sales. Our mobile connectivity service sales also include our distribution of entertainment, including news, sports, music, and movies, to commercial and leisure customers in the maritime, hotel, and retail markets through KVH Media Group, as well as the distribution of training films and eLearning computer-based training courses to commercial customers in the maritime market through our Videotel business. We typically recognize revenue from media content sales ratably over the period of the service contract. We provide, for monthly fixed and usage fees, satellite connectivity services for broadband Internet, data and Voice over Internet Protocol (VoIP) service to our TracPhone V-series customers. We also earn monthly usage fees for third-party satellite connectivity for voice, data and Internet services to our Inmarsat and Iridium customers who choose to activate their subscriptions with us. Our service sales decreased slightly as a percentage of total consolidated revenue from 65% of our net sales for the three months ended June 30, 2017 to 63% for the three months ended June 30, 2018, but were constant at 64% of our net sales for the six months ended June 30, 2018 and 2017, respectively. The majority of KVH Media Group's and Videotel’s services are invoiced in pounds sterling, which increases our exposure to fluctuations in exchange rates.

Our marine leisure business within the mobile connectivity segment is highly seasonal, and seasonality can also impact our commercial marine business. Historically, we have generated the majority of our marine leisure product revenues during the first and second quarters of each year, and these revenues typically decline in the third and fourth quarters of each year, compared to the first two quarters. Temporary suspensions of our airtime services typically increase in the third and fourth quarters of each year as boats are placed out of service during the winter months.

Inertial Navigation Segment

Our inertial navigation segment offers precision fiber optic gyro (FOG)-based systems that enable platform and optical stabilization, navigation, pointing, and guidance. Our inertial navigation products also include tactical navigation systems that provide uninterrupted access to navigation and pointing information in a variety of military vehicles, including tactical trucks and light armored vehicles. Our inertial navigation products are sold directly to U.S. and foreign governments and government contractors, as well as through an international network of authorized independent sales representatives. In addition, our inertial navigation products are used in numerous commercial products, such as navigation and positioning systems for various applications including precision mapping, dynamic surveying, autonomous vehicles, train location control and track geometry measurement systems, industrial robotics and optical stabilization.

We generate sales primarily from the sale of our mobile connectivity systems and services and our inertial navigation products and services. The following table provides, for the periods indicated, our sales by segment:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	

Mobile connectivity	$33,764	$34,034	$66,513	$68,321
Inertial navigation	9,628	6,415	16,980	12,339
Net sales	$43,392	$40,449	$83,493	$80,660

Product sales within the mobile connectivity segment accounted for 19% and 22% of our consolidated net sales for the three months ended June 30, 2018 and 2017, respectively and 19% and 23% of our consolidated net sales for the six months ended June 30, 2018 and 2017, respectively. Sales of mini-VSAT Broadband airtime service accounted for 40% and 41% of our consolidated net sales for the three months ended June 30, 2018 and 2017, respectively and 40% and 40% of our consolidated net sales for the six months ended June 30, 2018 and 2017, respectively. Sales of content and training service sales within the mobile connectivity segment accounted for 18% and 20% of our consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 18% and 20% of our consolidated net sales for the six months ended June 30, 2018 and 2017, respectively.

Within our inertial navigation segment, net sales of FOG-based guidance and navigation systems accounted for 15% and 12% of our consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 14% and 11% of our consolidated net sales for the six months ended June 30, 2018 and 2017, respectively.

No other single product class accounts for 10% or more of our consolidated net sales for the three months ended June 30, 2018 and 2017 and six months ended June 30, 2018 and 2017, respectively. No individual customer accounted for 10% or more of our consolidated net sales for the three months ended June 30, 2018 and 2017 or the six months ended June 30, 2018 and 2017, respectively.

We operate in a number of major geographic areas across the globe. We generate our international net sales, based upon customer location, primarily from customers located in Canada, Europe, Africa, Asia/Pacific, the Middle East, and India. Our international net sales totaled 60% and 62% of our consolidated net sales for the three months ended June 30, 2018 and 2017, respectively, and 59% and 61% of our consolidated net sales for the six months ended June 30, 2018 and 2017, respectively. No individual foreign country represented 10% or more of our consolidated net sales for the three months ended June 30, 2018 and 2017 or the six months ended June 30, 2018 and 2017.

In addition to our internally funded research and development efforts, we also conduct research and development activities that are funded by our customers. These activities relate primarily to engineering studies, surveys, prototype development, program management, and standard product customization. In accordance with accounting principles generally accepted in the United States of America, we account for customer-funded research as service revenue, and we account for the associated research and development costs as costs of service and product sales. As a result, customer-funded research and development are not included in the research and development expense that we present in our statement of operations. The following table presents our total annual research and development effort, representing the sum of research costs of service and product sales and the operating expense of research and development as described in our statement of operations. Our management believes this information is useful because it provides a better understanding of our total expenditures on research and development activities.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
Research and development expense presented on the statement of operations	$3,565	$3,761	$7,499	$7,708
Costs of customer-funded research and development included in costs of service sales	953	530	1,628	1,039
Total consolidated statements of operations expenditures on research and development activities	$4,518	$4,291	$9,127	$8,747

Critical Accounting Policies and Significant Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities, sales and expenses, and related disclosure at the date of our financial statements. Our significant accounting policies are summarized in Note 1 to the consolidated financial statements in our annual report on Form 10-K for the year ended December 31, 2017.

As described in our annual report on Form 10-K for the year ended December 31, 2017, our most critical accounting policies and estimates upon which our consolidated financial statements were prepared were those relating to revenue recognition, valuation of accounts receivable, valuation of inventory, valuations and purchase price allocations related to business combinations, expected future cash flows including growth rates, discount rates, terminal values and other assumptions and estimates used to evaluate the recoverability of long-lived assets and goodwill, estimated fair values of long-lived assets, including goodwill, amortization methods and periods, certain accrued expenses and other related charges, stock-based compensation, contingent liabilities, key valuation assumptions for its share-based awards, estimated fulfillment costs for warranty obligations, tax reserves and recoverability of our net deferred tax assets and related valuation allowance. We have reviewed our policies and estimates and determined that these remain our most critical accounting policies and estimates for the six months ended June 30, 2018. We have updated our revenue recognition policies in conjunction with our adoption of ASC 606 as of January 1, 2018, as further described in Note 16 to the accompanying financial statements.

Readers should refer to our annual report on Form 10-K for the year ended December 31, 2017 under “Management’s Discussion and Analysis of Financial Condition and Results of Operation—Critical Accounting Policies and Significant Estimates” for descriptions of these policies and estimates, as well as the notes to the consolidated financial statements included elsewhere within this report.

Results of Operations

The following table provides, for the periods indicated, certain financial data expressed as a percentage of net sales:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2018	2017	2018	2017
Sales:				
Product	37.2 %	35.4 %	36.1 %	36.2 %
Service	62.8	64.6	63.9	63.8
Net sales	100.0	100.0	100.0	100.0
Cost and expenses:				
Costs of product sales	23.3	23.0	22.8	24.6
Costs of service sales	35.7	32.4	35.1	32.7
Research and development	8.2	9.3	9.0	9.6
Sales, marketing and support	19.6	20.1	20.9	20.8
General and administrative	16.0	18.6	17.5	19.5
Total costs and expenses	102.8	103.4	105.3	107.2
Loss from operations	(2.8)	(3.4)	(5.3)	(7.2)
Interest income	0.4	0.4	0.4	0.4
Interest expense	1.0	0.8	1.0	0.9
Other income (expense), net	1.0	(0.3)	0.2	(0.2)
Loss before income tax expense	(2.4)	(4.1)	(5.7)	(7.9)
Income tax expense	0.8	0.9	0.6	0.7
Net loss	(3.2)%	(5.0)%	(6.3)%	(8.6)%

Three months ended June 30, 2018 and 2017

Net Sales

As discussed further under the heading "Segment Discussion" below, product sales increased $1.9 million, or 13%, to $16.2 million for the three months ended June 30, 2018 from $14.3 million for the three months ended June 30, 2017, primarily due to an increase in inertial navigation product sales of $2.7 million, which was partially offset by a decrease in mobile connectivity product sales of $0.8 million. Service sales for the three months ended June 30, 2018 increased $1.0 million, or 4%, to $27.2 million from $26.2 million for the three months ended June 30, 2017, due to an increase in inertial navigation service sales of $0.5 million and an increase in mobile connectivity service sales of $0.5 million.

Costs of Sales

Costs of sales consists of costs of product sales and costs of service sales. Costs of sales increased by $3.2 million, or 14%, in the three months ended June 30, 2018 to $25.6 million from $22.4 million in the three months ended June 30, 2017. The increase in costs of sales was driven by a $0.8 million increase in costs of product sales and a $2.4 million increase in costs of service sales. As a percentage of net sales, costs of sales was 59% and 55% for the three months ended June 30, 2018 and 2017, respectively.

37

Our costs of product sales consist primarily of materials, manufacturing overhead, and direct labor used to produce our products. For the three months ended June 30, 2018, costs of product sales increased by $0.8 million, or 9%, to $10.1 million from $9.3 million in the three months ended June 30, 2017. As a percentage of product sales, costs of product sales were 62% and 65% for the three months ended June 30, 2018 and 2017, respectively. Mobile connectivity costs of product sales decreased by $0.9 million, or 14%, and mobile connectivity costs of product sales as a percentage of mobile connectivity product sales were 67% and 71% for the three months ended June 30, 2018 and 2017, respectively. The decrease was principally driven by product mix. Inertial navigation costs of product sales increased by $1.7 million, or 56%, primarily due to a $1.4 million increase in our FOG costs of product sales and a $0.3 million increase in our TACNAV costs of product sales. As a percentage of inertial navigation product sales, costs of inertial navigation product sales were 58% and 55% for the three months ended June 30, 2018 and 2017, respectively.

Our costs of service sales consist primarily of satellite service capacity, depreciation, service network overhead expense associated with our mini-VSAT Broadband network infrastructure, direct network service labor, Inmarsat service costs, product installation costs, engineering and related direct costs associated with customer-funded research and development, media materials and distribution costs, and service repair materials. For the three months ended June 30, 2018, costs of service sales increased by $2.4 million, or 18%, to $15.5 million from $13.1 million for the three months ended June 30, 2017. As a percentage of service sales, costs of service sales were 57% and 50% for the three months ended June 30, 2018 and 2017, respectively. Mobile connectivity costs of service sales increased by $1.9 million, or 15%, primarily due to the increase in mini-VSAT airtime costs of service sales, including increased depreciation expense related to our purchase of three new HTS satellite hubs. As a percentage of mobile connectivity service sales, costs of mobile connectivity service sales were 56% and 50% for the three months ended June 30, 2018 and 2017, respectively. Inertial navigation costs of service sales increased by $0.5 million, or 82%, due to an increase in contract engineering service revenues. As a percentage of inertial navigation service sales, costs of inertial navigation service sales were 78% and 55% for the three months ended June 30, 2018 and 2017, respectively, due to the mix of services delivered.

We expect that our costs of sales will generally increase in correlation with our expected growth in our mobile connectivity and inertial navigation net sales. To the extent that customers continue to subscribe to our AgilePlans program, we expect a corresponding increase in depreciation expense for AgilePlans equipment. We expect that the mobile connectivity costs of service sales as percentage of mobile connectivity sales will increase as we continue to integrate our HTS airtime network.

Operating Expenses

Research and development expense consists of direct labor, materials, external consultants, and related overhead costs that support our internally funded product development and product sustaining engineering activities. Research and development expense for the three months ended June 30, 2018 decreased by $0.2 million, or 5%, to $3.6 million from $3.8 million for the three months ended June 30, 2017. The primary reasons for the decrease in research and development expense were a $0.4 million decrease in unfunded engineering expenses, partially offset by a $0.1 million increase in salaries and employee benefits and a $0.1 million increase in professional fees. As a percentage of net sales, research and development expense for the three months ended June 30, 2018 and 2017 was 8% and 9%, respectively.

We expect that research and development expense will grow year-over-year as we continue to invest in developing new technologies and applications for our products.

Sales, marketing, and support expense consists primarily of salaries and related expenses for sales and marketing personnel, commissions for both in-house and third-party representatives, costs related to the co-development of certain content, other sales and marketing support costs such as advertising, literature and promotional materials, product service personnel and support costs, warranty-related costs and bad debt expense. Sales, marketing and support expense also includes the operating expenses of our sales office subsidiaries in Denmark, Singapore, Brazil, and Japan. Sales, marketing and support expense for the three months ended June 30, 2018 increased by $0.3 million, or 4%, to $8.5 million from $8.2 million for the three months ended June 30, 2017. The primary reasons for the increase in sales, marketing, and support expense were a $0.3 million increase in warranty expense and a $0.1 million increase in salaries and employee benefits, partially offset by a $0.1 million decrease in bad debt expense. As a percentage of net sales, sales, marketing and support expense was 20% for the three months ended June 30, 2018 and 2017.

We expect that our sales, marketing, and support expense will increase year-over-year primarily driven by increased personnel, marketing and technology investments to support product sales and launches.

General and administrative expense consists of costs attributable to management, finance and accounting, information technology, human resources, certain outside professional services, and other administrative costs. General and administrative expense for the three months ended June 30, 2018 decreased by $0.6 million, or 8%, to $6.9 million from $7.5 million for the three months ended June 30, 2017. The decrease in general and administrative expense resulted primarily from a $0.4 million decrease in salaries and associated compensation costs and a $0.2 million decrease in legal and professional fees. As a percentage of net sales, general and administrative expense for the three months ended June 30, 2018 and 2017 was 16% and 19%, respectively.

We expect general and administrative expenses to increase year-over-year in 2018, primarily driven by increased personnel costs.

Interest and Other Income (Expense), Net

Interest income represents interest earned on our cash and cash equivalents, as well as from investments. Interest income increased slightly to $0.2 million from $0.1 million for the three months ended June 30, 2018 and 2017, respectively. Interest expense increased $0.1 million for the three months ended June 30, 2018 to $0.4 million from $0.3 million for the three months ended June 30, 2017. Other income (expense), net increased to $0.4 million from other expense, net of $0.1 million for the three months ended June 30, 2018 and 2017 primarily due to an increase in foreign exchange gains from our UK operations.

Income Tax Expense

Income tax expense was $0.3 million for the three months ended June 30, 2018 and 2017 due to taxes related to income earned in foreign jurisdictions and no associated income tax benefit related to the losses incurred in the U.S. due to a full valuation allowance on our related deferred tax assets.

Segment Discussion - Three months ended June 30, 2018 and 2017

Our net sales by segment for the three months ended June 30, 2018 and 2017 were as follows:

	For the three months ended June 30,		Change 2018 vs. 2017	
	2018	2017	$	%
	(dollars in thousands)			
Mobile connectivity sales:				
Product	$8,103	$8,875	$(772)	(9)%
Service	25,661	25,159	502	2 %
Net sales	$33,764	$34,034	$(270)	(1)%
Inertial navigation sales:				
Product	$8,059	$5,448	$2,611	48 %
Service	1,569	967	602	62 %
Net sales	$9,628	$6,415	$3,213	50 %

Operating income (loss) by segment for the three months ended June 30, 2018 and 2017 were as follows:

	For the three months ended June 30,		Change 2018 vs. 2017	
	2018	2017	$	%
	(dollars in thousands)			
Mobile connectivity	$1,149	$2,638	$(1,489)	(56)%
Inertial navigation	1,564	362	1,202	332 %
	$2,713	$3,000	$(287)	(10)%
Unallocated	(3,900)	(4,368)	468	11 %
Loss from operations	$(1,187)	$(1,368)	$181	13 %

Mobile Connectivity Segment

Net sales in the mobile connectivity segment decreased $0.3 million, or 1%, for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. Mobile connectivity product sales decreased by $0.8 million, or 9%, to $8.1 million for the three months ended June 30, 2018 from $8.9 million for the three months ended June 30, 2017. The decrease was primarily due to a $0.5 million, or 6%, decrease in marine mobile connectivity product sales due partly to the impact of the AgilePlans subscription service and the adoption of ASC 606 and a $0.3 million, or 33%, decrease in sales of our land mobile connectivity products. The net impact of adopting ASC 606 was a decrease in marine connectivity product sales of $0.2 million.

Mobile connectivity service sales increased by $0.5 million, or 2%, to $25.7 million for the three months ended June 30, 2018 from $25.2 million for the three months ended June 30, 2017. The increase was primarily due to a $0.8 million increase in our mini-VSAT service sales compared to the three months ended June 30, 2017 primarily due to a 9% increase in subscribers, partially as a result of the introduction of AgilePlans. Partially offsetting this increase was a $0.3 million decrease in content and training service sales.

We expect that our mini-VSAT service sales will continue to grow year-over-year, primarily as a result of the continued expansion of our mini-VSAT Broadband customer base, and due to the availability of our AgilePlans subscription service model. We expect that mini-VSAT product sales will continue to decline to the extent that customers select the new subscription service model.

Operating earnings for the mobile connectivity segment decreased $1.5 million or 56%, for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. This decrease resulted primarily from the increase in airtime network costs due to the operation of the new HTS network in addition to the existing network, a $0.6 million increase in salaries and associated compensation, a $0.2 million increase in warranty expense, and a $0.1 million increase in external commissions, partially offset by $0.1 million decrease in bad debt expense.

We expect our overall mobile connectivity operating earnings to decline slightly in 2018. As more of our customers choose our attractive AgilePlans Connectivity as a Service option, we initially recognize a smaller amount of revenue compared to traditional product sales.

Inertial Navigation Segment

Net sales in the inertial navigation segment increased $3.2 million, or 50%, for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. Inertial navigation product sales increased $2.7 million, or 48%, to $8.1 million for the three months ended June 30, 2018 from $5.4 million for the three months ended June 30, 2017. Specifically, FOG product sales increased $1.9 million and TACNAV sales increased $0.8 million.

Inertial navigation service sales increased $0.5 million or 62%, to $1.5 million for the three months ended June 30, 2018 from $1.0 million for the three months ended June 30, 2017. The increase resulted from a $0.5 million increase in contracted engineering services for an engineering and services development contract from a major U.S. defense contractor, which began in the first quarter of 2018 and was completed in the second quarter.

We expect to see growth in our FOG product sales in 2018 due to a higher backlog entering the year. We also expect to see growth in contracted engineering services year-over-year. However, it is challenging to predict whether sales of our TACNAV products will increase in 2018 as we cannot predict when specific orders, which could be individually significant, may be received, if at all.

Our operating earnings for the inertial navigation segment increased $1.2 million for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. This increase is primarily due to the increase in product and service sales previously mentioned, as well as a $0.2 million decrease in salaries and associated compensation.

We expect our overall inertial navigation operating earnings to increase modestly in 2018 due to the higher backlog of FOG products entering the year and higher expected contracted engineering service sales.

Unallocated

Certain corporate-level costs have not been allocated because they are not directly attributable to either segment. These costs primarily consist of broad corporate functions, including executive, legal, finance, information technology, and costs associated with corporate actions.

Unallocated operating loss decreased $0.4 million, or 11%, for the three months ended June 30, 2018 as compared to the three months ended June 30, 2017. The decrease in the unallocated operating loss was primarily the result of a decrease in salaries and associated compensation.

Six months ended June 30, 2018 and 2017

Net Sales

As discussed further under the heading "Segment Discussion" below, product sales increased $1.0 million, or 3%, to $30.2 million for the six months ended June 30, 2018 from $29.2 million for the six months ended June 30, 2017, primarily due to an increase in inertial navigation product sales of $3.7 million, which was partially offset by a $2.7 million decrease in mobile connectivity product sales. Service sales for the six months ended June 30, 2018 increased $1.8 million, or 3%, to $53.3 million from $51.5 million for the six months ended June 30, 2017 due to an increase in inertial navigation service sales of $0.9 million, and an increase in mobile connectivity service sales of $0.9 million.

Costs of Sales

Costs of sales increased by $2.1 million, or 5%, in the six months ended June 30, 2018 to $48.3 million from $46.2 million in the six months ended June 30, 2017. The increase in costs of sales was driven by an increase of $2.9 million in costs of service sales, partially offset by a $0.8 million decrease in costs of product sales. As a percentage of net sales, costs of sales were 58% and 57% for the six months ended June 30, 2018 and 2017, respectively.

For the six months ended June 30, 2018, costs of product sales decreased by $0.8 million, or 4%, to $19.0 million from $19.8 million in the six months ended June 30, 2017. As a percentage of product sales, costs of product sales were 63% and 68% for the six months ended June 30, 2018 and 2017, respectively. Mobile connectivity costs of product sales decreased by $3.0 million, or 22%, due to a decrease in our mobile connectivity product sales. Mobile connectivity costs of product sales as a percentage of mobile connectivity product sales were 66% and 73% for the six months ended June 30, 2018 and 2017, respectively. Inertial navigation costs of product sales increased by $2.2 million, or 35%, primarily due to a $1.8 million increase in our FOG costs of product sales and a $0.4 million increase in our TACNAV costs of product sales. Inertial navigation costs of product sales as a percentage of inertial navigation product sales were 59% and 59% for the six months ended June 30, 2018 and 2017, respectively.

For the six months ended June 30, 2018, costs of service sales increased by $2.9 million, or 11%, to $29.3 million from $26.4 million for the six months ended June 30, 2017. As a percentage of service sales, costs of service sales were 55% and 51% for the six months ended June 30, 2018 and 2017, respectively. Mobile connectivity costs of service sales increased by $2.2 million, or 9%, primarily due a $2.5 million increase in mini-VSAT airtime costs of service sales including increased depreciation expense related to our purchase of three new HTS satellite hubs, partially offset by a $0.1 million decrease in content and learning costs of service sales, a $0.1 million decrease in Inmarsat airtime costs of service sales, and a $0.1 million decrease in other mobile connectivity cost of service sales. Mobile connectivity costs of service sales as a percentage of mobile connectivity service sales were 55% and 51% for the six months ended June 30, 2018 and 2017, respectively. Inertial navigation costs of service sales increased by $0.7 million, or 64%, due to an increase in contract engineering services revenues. Inertial navigation costs of service sales as a percentage of inertial navigation service sales were 63% and 55% for the six months ended June 30, 2018 and

2017, respectively.

Operating Expenses

Research and development expense for the six months ended June 30, 2018 decreased by $0.2 million, or 3%, to $7.5 million from $7.7 million for the six months ended June 30, 2017. The primary reason for the decrease in research and development expense was a $0.6 million decrease in unfunded engineering expenses, partially offset by a $0.2 million increase in salaries and employee benefits, and a $0.2 million increase in expensed materials. As a percentage of net sales, research and development expense for the six months ended June 30, 2018 and 2017 was 9% and 10%, respectively.

Sales, marketing and support expense for the six months ended June 30, 2018 increased by $0.5 million, or 3%, to $17.4 million from $16.9 million for the six months ended June 30, 2017. The increase in sales, marketing and support expense resulted primarily from a $0.7 million increase in warranty expense, and a $0.3 million increase in salaries and employee benefits, partially offset by a $0.2 million decrease in marketing expenses, a $0.2 million decrease in professional fees, and a $0.1 million decrease in bad debt expense. As a percentage of net sales, sales, marketing and support expense was 21% for the six months ended June 30, 2018 and 2017.

General and administrative expense for the six months ended June 30, 2018 decreased by $1.1 million, or 7%, to $14.6 million from $15.7 million for the six months ended June 30, 2017. The decrease in general and administrative expense resulted primarily from a $0.7 million decrease in salaries and associated compensation and a $0.4 million decrease in legal and professional fees. As a percentage of net sales, general and administrative expense for the six months ended June 30, 2018 was 18% as compared to 20% for the six months ended June 30, 2017.

Interest and Other Income (Expense), Net

Interest income remained flat at $0.3 million for the six months ended June 30, 2018 and 2017. Interest expense increased $0.1 million to $0.8 million for the six months ended June 30, 2018 from $0.7 million for the six months ended June 30, 2017. Other income (expense), net increased to $0.2 million from other expense, net of $0.2 million for the six months ended June 30, 2018 and 2017 primarily due to an increase in foreign exchange gains from our UK operations.

Income Tax Expense

Income tax expense was $0.5 million for the six months ended June 30, 2018 and 2017 due to taxes related to income earned in foreign jurisdictions and no associated income tax benefit related to the losses incurred in the U.S. due to a full valuation allowance on our related deferred tax assets.

Segment Discussion - Six months ended June 30, 2018 and 2017

Our net sales by segment for the six months ended June 30, 2018 and 2017 were as follows:

	For the six months ended June 30,		Change 2018 vs. 2017	
	2018	2017	$	%
	(dollars in thousands)			
Mobile connectivity sales:				
Product	$16,023	$18,729	$(2,706)	(14)%
Service	50,490	49,592	898	2 %
Net sales	$66,513	$68,321	$(1,808)	(3)%
Inertial navigation sales:				
Product	$14,131	$10,457	$3,674	35 %
Service	2,849	1,882	967	51 %
Net sales	$16,980	$12,339	$4,641	38 %

Operating income (loss) by segment for the six months ended June 30, 2018 and 2017 were as follows:

	For the six months ended June 30,		Change 2018 vs. 2017	
	2018	2017	$	%
	(dollars in thousands)			
Mobile connectivity	$2,221	$3,260	$(1,039)	(32)%
Inertial navigation	1,898	318	1,580	497 %
	$4,119	$3,578	$541	15 %
Unallocated	(8,486)	(9,416)	930	10 %
Loss from operations	$(4,367)	$(5,838)	$1,471	25 %

Mobile Connectivity Segment

Net sales in the mobile connectivity segment decreased $1.8 million, or 3%, for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017. Mobile connectivity product sales decreased by $2.7 million, or 14%, to $16.0 million for the six months ended June 30, 2018 from $18.7 million for the six months ended June 30, 2017. The decrease was primarily due to a $2.0 million, or 12%, decrease in marine product sales due partly to the impact of the AgilePlans subscription service and the adoption of ASC 606 and a $0.7 million, or 33%, decrease in sales of our land mobile connectivity products. The net impact of adopting ASC 606 was a decrease in marine connectivity product sales of $0.6 million.

Mobile connectivity service sales increased by $0.9 million, or 2%, to $50.5 million for the six months ended June 30, 2018 from $49.6 million for the six months ended June 30, 2017. The increase was primarily due to a $1.4 million increase in our mini-VSAT service sales compared to the six months ended June 30, 2017 primarily due to a 9% increase in subscribers, partially as a result of the introduction of AgilePlans. Partially offsetting this increase was a

$0.4 million decrease in content and training service sales and a $0.1 million decrease in other mobile connectivity services.

Operating earnings for the mobile connectivity segment decreased $1.0 million, or 32%, for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017. This decrease resulted primarily from the increase in airtime network costs due to the operation of the new HTS network in addition to the existing network, a $0.5 million increase in salaries and associated compensation, a $0.8 million increase in warranty expense, partially offset by a $0.4 million decrease in professional fees and a $0.2 million decrease in bad debt expense.

Inertial Navigation Segment

Net sales in the inertial navigation segment increased $4.6 million, or 38%, for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017. Inertial navigation product sales increased by $3.7 million, or 35%, to $14.2 million for the six months ended June 30, 2018 from $10.5 million for the six months ended June 30, 2017 primarily due to a $2.8 million increase in FOG products sales and a $0.9 million increase in TACNAV sales.

Inertial navigation service sales increased $0.9 million, or 51%, to $2.8 million for the six months ended June 30, 2018 from $1.9 million for the six months ended June 30, 2017. The increase resulted primarily from a $0.7 million increase in contracted engineering services for an engineering and services development contract from a major U.S. defense contractor, which began in the first quarter of 2018 and was completed in the second quarter, as well as a $0.2 million increase in inertial navigation repair revenue.

Our operating earnings for the inertial navigation segment increased $1.6 million for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017. This increase is primarily due to the increase in product and service sales, partially offset by a $0.1 million increase in salaries and associated compensation.

Unallocated

Unallocated operating loss decreased $0.9 million, or 10%, for the six months ended June 30, 2018 as compared to the six months ended June 30, 2017. The decrease in the unallocated operating loss was primarily the result of a $0.8 million decrease in salaries and associated compensation and a $0.3 million decrease in professional fees, partially offset by a $0.2 increase in depreciation expense.

Backlog

Backlog is not a meaningful indicator for predicting revenue in future periods. Commercial resellers for our mobile connectivity products and FOG products do not carry extensive inventories and rely on us to ship products quickly. Generally due to the rapid delivery of our commercial products, our backlog for those products is not significant.

Our backlog for all products and services was $13.1 million and $16.3 million as of June 30, 2018 and December 31, 2017, respectively. As of June 30, 2018, $9.3 million of our backlog was scheduled for fulfillment in 2018, $1.8 million was scheduled for fulfillment in 2019, and $2.0 million was scheduled for fulfillment in 2020 through 2025.

Backlog consists of orders evidenced by written agreements and specified delivery dates for customers who are acceptable credit risks. We do not include satellite connectivity service sales in our backlog even though many of our satellite connectivity customers have signed annual or multi-year service contracts providing for a fixed monthly fee. Military orders included in backlog are generally subject to cancellation for the convenience of the customer. When orders are canceled, we generally recover actual costs incurred through the date of cancellation and the costs resulting from termination. As of June 30, 2018, our backlog included $4.3 million in orders that are subject to cancellation for convenience by the customer. Individual orders for guidance and stabilization products are often large and may require procurement of specialized long-lead components and allocation of manufacturing resources. The complexity of planning and executing larger orders generally requires customers to order well in advance of the required delivery date, resulting in backlog.

Liquidity and Capital Resources

Our primary liquidity needs are to fund general business requirements, including working capital requirements, capital expenditures, interest payments, and debt repayments. In recent years, we have funded our operations primarily from cash flows from operations, bank financing, an equity private placement and the proceeds received from exercises of stock options.

As of June 30, 2018, we had $34.9 million in cash, cash equivalents, and marketable securities, of which $18.5 million in cash and cash equivalents was held in local currencies by our foreign subsidiaries. Our foreign subsidiaries held no marketable securities as of June 30, 2018. As of June 30, 2018, we had $44.9 million in working capital.

Net cash used in operations was $1.2 million for the six months ended June 30, 2018 compared to net cash provided by operations of $6.8 million for the six months ended June 30, 2017. The $8.0 million decrease in cash provided by operations was primarily due to a $5.8 million decrease in cash inflows relating to accounts receivable, a $4.2 million increase in cash outflows relating to accounts payable and accrued expenses, a $2.5 million decrease in cash inflows relating to deferred revenue and contract liabilities and a $0.7 million increase in cash outflows relating to non-current assets and non-current contract assets. Partially offsetting these items were a $2.5 million decrease in cash outflows relating to inventories, a $1.7 million decrease in our net loss, a $0.4 million increase in non-cash items, a $0.3 million decrease in cash outflows relating to prepaid expenses, other current assets and current contract assets, and a $0.3 million decrease in cash outflows related to other long-term liabilities.

Net cash provided by investing activities was $0.5 million for the six months ended June 30, 2018 compared to net cash provided by investing activities of $5.1 million for the six months ended June 30, 2017. The $4.6 million decrease was principally the result of a $4.0 million decrease in net proceeds from investments in available-for-sale marketable securities and a $0.6 million increase in capital expenditures.

Net cash provided by financing activities was $0.9 million for the six months ended June 30, 2018 compared to net cash used in financing activities of $8.9 million for the six months ended June 30, 2017. The $9.8 million increase in net cash provided by financing activities is primarily attributable to a $6.3 million decrease in repayments of long-term debt and term note borrowings and a $4.5 million increase in sale of treasury stock. These amounts were partially offset by a $0.8 million decrease in proceeds from the exercise of stock options net of payments for employee restricted stock withholdings and a $0.3 million increase in payment on our capital lease.

Borrowing Arrangements

Principal Credit Facility

As of June 30, 2018, there was $40.9 million in aggregate principal amount outstanding under our principal credit facility. On July 1, 2014, we entered into a five-year senior credit agreement with Bank of America, N.A., as administrative agent, and the lenders named from time to time as parties thereto, for an aggregate amount of up to $80.0 million, including a revolving credit facility of up to $15.0 million and a term loan of $65.0 million to be used for general corporate purposes, including both the refinancing of the $30.0 million of indebtedness then outstanding under our former credit facility and permitted acquisitions. The credit agreement was most recently amended in March 2017 to modify the Maximum Consolidated Leverage Ratio, the Applicable Rate, the Consolidated Fixed Charge Coverage Ratio (each as defined in the credit agreement) and the amortization schedule of the term loan, as well as to make certain other changes.

In connection with the March 2017 amendment, we made an additional principal repayment of $6.0 million on the term loan and amended the repayment terms. Under the amended terms, we must make principal repayments of $575,000 every three months starting on April 1, 2017 until the loan matures on July 1, 2019. On the maturity date, the entire remaining principal balance of the loan, including any future loans under the revolver, is due and payable, together with all accrued and unpaid interest, penalties, and any other amounts due and payable under the credit agreement. The credit agreement contains provisions requiring the mandatory prepayment of amounts outstanding under the term loan and the revolver under specified circumstances, including (i) 100% of the net cash proceeds from certain dispositions to the extent not reinvested in our business within a stated period, (ii) 50% of the net cash proceeds from stated equity issuances and (iii) 100% of the net cash proceeds from certain receipts of more than $250,000 outside the ordinary course of business. The prepayments are first applied to the term loan, in inverse order of maturity, and then to the revolver. In the discretion of the administrative agent, certain mandatory prepayments made on the revolver can permanently reduce the amount of credit available under the revolver.

As required by the credit agreement, we used 50% of the net cash proceeds of our $4.5 million private placement of treasury stock to SKY Perfect JSAT Corporation on February 28, 2018 to prepay $2.25 million of indebtedness under the term loan.

Loans under the credit agreement bear interest at varying rates determined in accordance with the credit agreement. Each LIBOR Rate Loan, as defined in the credit agreement, bears interest on the outstanding principal amount thereof for each interest period from the applicable borrowing date at a rate per annum equal to the LIBOR Daily Floating Rate or LIBOR Monthly Floating Rate, each as defined in the credit agreement, as applicable, plus the Applicable Rate, as defined in the credit agreement, and each Base Rate Loan, as defined in the credit agreement, bears interest on the outstanding principal amount thereof from the applicable borrowing date at a rate per annum equal to the Base Rate, as defined in the credit agreement, plus the Applicable Rate. The Applicable Rate ranges from 1.75% to 2.25%, depending on our Consolidated Leverage Ratio, as defined in the credit agreement. The highest Applicable Rate applies when the Consolidated Leverage Ratio exceeds 1.50:1.00. Upon certain defaults, including failure to make payments when due, interest becomes payable at a higher default rate.

Borrowings under the revolver are subject to the satisfaction of numerous conditions precedent at the time of each borrowing, including the continued accuracy of our representations and warranties and the absence of any default under the credit agreement. As of June 30, 2018, there were no borrowings outstanding under the revolver.

The credit agreement contains two financial covenants, a Maximum Consolidated Leverage Ratio and a Minimum Consolidated Fixed Charge Coverage Ratio, each as defined in the credit agreement. The Maximum Consolidated Leverage Ratio may not be greater than 1.50:1.00. The Minimum Consolidated Fixed Charge Coverage Ratio may not be less than 1.25:1.00. In the March 2017 amendment, the definition of the Consolidated Fixed Charge Coverage Ratio was amended to include only maintenance capital expenditures, as defined. We were in compliance with these financial ratio debt covenants as of June 30, 2018 and expect to be in compliance with the financial covenants for the foreseeable future.

The credit agreement imposes certain other affirmative and negative covenants, including without limitation covenants with respect to the payment of taxes and other obligations, compliance with laws, entry into material contracts, creation of liens, incurrence of indebtedness, investments, dispositions, fundamental changes, restricted payments, changes in the nature of our business, transactions with affiliates, corporate and accounting changes, and sale and leaseback arrangements.

Our obligation to repay loans under the credit agreement could be accelerated upon a default or event of default under the terms of the credit agreement, including certain failures to pay principal or interest when due, certain breaches of representations and warranties, the failure to comply with our affirmative and negative covenants under the credit agreement, a change of control, certain defaults in payment relating to other indebtedness, the acceleration of payment of certain other indebtedness, certain events relating to our liquidation, dissolution, bankruptcy, insolvency or receivership, the entry of certain judgments against us, certain events relating to the impairment of collateral or the lenders' security interest therein, and any other material adverse change with respect to us.

Mortgage Loan

We have a $4.0 million mortgage loan related to our headquarters facility in Middletown, Rhode Island. The loan term is ten years, with a principal amortization of 20 years. The interest rate is based on the BBA LIBOR Rate (as defined in the loan agreement) plus 2.00 percentage points. The mortgage loan is secured by the underlying property and improvements. The monthly mortgage payment is approximately $15,000, plus interest, and increases in increments of approximately $1,000 each year over the life of the mortgage. Due to the difference in the term of the loan and amortization of the principal, a balloon payment of $2.6 million is due in April 2019. The loan contains one financial covenant, a Fixed Charge Coverage Ratio, which applies in the event that our consolidated cash, cash equivalents, and marketable securities balance falls below $25.0 million at any time. As our consolidated cash, cash equivalents, and marketable securities balance was above the minimum threshold throughout 2017, the Fixed Charge Coverage Ratio did not apply.

Under the mortgage loan, we may prepay our outstanding loan balance subject to an early termination charge. If we were to default on the mortgage loan, the underlying property and improvements would be used as collateral. In 2010, we entered into two interest rate swap agreements that are intended to hedge our mortgage interest obligations over the term of the mortgage loan by fixing the interest rates specified in the mortgage loan to 5.91% for half of the principal amount outstanding as of April 1, 2010 and 6.07% for the remaining half.

Other Matters

We intend to continue to invest in the mini-VSAT Broadband network on a global basis. As part of the future potential capacity expansion, we would plan to seek to acquire additional satellite capacity from satellite operators, expend funds to seek regulatory approvals and permits, develop product enhancements in anticipation of the expansion, and hire additional personnel. From time to time we have entered into multi-year agreements to lease satellite capacity, and we have also purchased numerous satellite hubs to support the added capacity. These transactions can involve millions of dollars, and from time to time we have entered into secured lending arrangements to finance them. During the first quarter of 2018, we entered into a five-year capital lease for three satellite hubs for the HTS network. The total cost of the five-year capital lease will be $3.1 million.

On November 26, 2008, our Board of Directors authorized a program to repurchase up to one million shares of our common stock. The share repurchase program is funded using our existing cash, cash equivalents, marketable securities and future cash flows. As of June 30, 2018, 341,000 shares of our common stock remain available for repurchase under the program. We did not purchase any shares of our common stock in the six months ended June 30, 2018.

As of June 30, 2018, we held $34.9 million in cash, cash equivalents and marketable securities. We believe that our cash, cash equivalents and marketable securities, together with our other working capital and cash flows from operations, will be adequate to meet planned operating and capital requirements through at least the next twelve months. However, as the need or opportunity arises, we may seek to raise additional capital through public or private sales of securities or through additional debt financing. There are no assurances that we will be able to obtain any additional funding or that such funding will be available on terms acceptable to us.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our primary market risk exposures are interest rate risk and foreign currency exchange rate risk.

We are exposed to changes in interest rates because we finance certain operations through fixed and variable rate debt instruments.

We had $40.9 million in borrowings outstanding at June 30, 2018, at an interest rate equal to the LIBOR Daily Floating Rate plus 1.75% under our variable-rate credit facility. For more information regarding our credit facility, see Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Borrowing Arrangements. A hypothetical 10% increase or decrease in interest rates would have a $0.2 million impact on our annual interest expense based on the $40.9 million outstanding at June 30, 2018 with an interest rate of 3.85%.

As discussed in Note 17 to the consolidated financial statements, effective April 1, 2010, in order to reduce the volatility of cash outflows that arise from changes in interest rates, we entered into two interest rate swap agreements. These interest rate swap agreements are intended to hedge our mortgage loan related to our headquarters facility in Middletown, Rhode Island by fixing the interest rates specified in the mortgage loan to 5.9% for half of the principal amount outstanding and 6.1% for the remaining half of the principal amount outstanding as of April 1, 2010 until the mortgage loan expires on April 16, 2019.

We are exposed to currency exchange rate fluctuations related to our subsidiary operations in the United Kingdom, Denmark, Norway, Brazil, Singapore, Hong Kong, Cyprus, Japan, Belgium, and the Netherlands. Certain transactions in these locations are made in the local currency, yet are reported in the U.S. dollar. For foreign currency exposures existing at June 30, 2018, a 10% unfavorable movement in the foreign exchange rates for our subsidiary locations would not expose us to material losses in earnings or cash flows.

From time to time, we have purchased foreign currency forward contracts. These forward contracts are intended to offset the impact of exchange rate fluctuations on cash flows of our foreign subsidiaries. Foreign exchange contracts are accounted for as cash flow hedges and are recorded on the balance sheet at fair value until executed. Changes in the fair value are recognized in earnings. We did not enter into any such contracts or have any such contracts outstanding during the six months ended June 30, 2018.

The primary objective of our investment activities is to preserve principal and maintain liquidity, while at the same time maximizing income. We have not entered into any instruments for trading purposes. Some of the securities that we invest in may have market risk. To minimize this risk, we maintain our portfolio of cash equivalents and short-term investments in a variety of securities that from time to time can include United States treasuries, certificates of deposit, investment grade asset-backed corporate securities, money market mutual funds, municipal bonds, and government agency and non-government debt securities. As of June 30, 2018, all of our marketable securities consisted of money market mutual funds. Accordingly, long-term interest rate risk is not considered material for our investment activities. We did not invest in any financial instruments denominated in foreign currencies as of June 30, 2018.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, our management has evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2018, the end of the period covered by this interim report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2018.

Changes in Internal Control over Financial Reporting

Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, our management has evaluated changes in our internal control over financial reporting that occurred during the second quarter of 2018. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer did not identify any change in our internal control over financial reporting during the second quarter of 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Important Considerations

The effectiveness of our disclosure controls and procedures and our internal control over financial reporting is subject to various inherent limitations, including cost limitations, judgments used in decision making, assumptions about the likelihood of future events, the soundness of our systems, the possibility of human error, and the risk of fraud. Moreover, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions and the risk that the degree of compliance with policies or procedures may deteriorate over time. Because of these limitations, there can be no assurance that any system of disclosure controls and procedures or internal control over financial reporting will be successful in preventing all errors or fraud or in making all material information known in a timely manner to the appropriate levels of management.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time, we are involved in litigation incidental to the conduct of our business. In the ordinary course of business, we are a party to inquiries, legal proceedings and claims including, from time to time, disagreements with vendors and customers. We are not a party to any lawsuit or proceeding that, in our opinion, is likely to materially harm our business, results of operations, financial condition, or cash flows.

ITEM 1A. RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the following risk factors in evaluating our business. If any of these risks, or other risks not presently known to us or that we currently believe are not significant, develops into an actual event, then our business, financial condition and results of operations could be adversely affected. If that happens, the market price of our common stock could decline.

Our new AgilePlans pricing model for our mini-VSAT broadband business may adversely affect our revenues on a short-term or long-term basis.

In April 2017, we launched AgilePlans, our all-inclusive connectivity-as-a-service, or CaaS, usage-based pricing model for our mini-VSAT broadband service. Under this CaaS model, we charge subscribers a monthly fee in exchange for which we provide satellite communication hardware, shipping and installation, maintenance and support, airtime and voice services, a service management portal and certain basic content services. For both the three and six months ended June 30, 2018, AgilePlans revenue comprised less than 2% of our total revenue, respectively. Under this new model, we retain ownership of our satellite equipment and do not sell it to subscribers; accordingly, we anticipate that, to the extent that customers adopt this new subscription model, our revenues from product sales will decline, and our provision of this equipment to subscribers will increase our capital expenditures, which over time will increase our operating expenses as we depreciate these assets. Similarly, we anticipate that revenues from other services included in the plans, which have previously been sold separately, will also decline. Although our goal with the new pricing model is to increase the number of subscribers and thereby increase our overall mobile connectivity revenues, the pricing model is new and untested in our markets and may have unanticipated consequences for our business. There can be no assurance that customers will adopt the new pricing model or that revenues from our AgilePlans will offset the loss of other revenue and increase our overall mobile connectivity revenues. Accordingly, the introduction of this new pricing model may lead to lower overall revenues in our mobile connectivity segment on either a short-term or long-term basis. Further, because we retain ownership of the satellite communications equipment provided to subscribers under the AgilePlans, we may incur increased costs seeking to recover equipment from any customers who may default on payment or transition to another service. Adoption of the same or similar pricing models by competitors may lead to significant price competition, which could also adversely affect our revenues.

Our launch of a new high-throughput satellite network will cause us to incur significant additional operating costs and may create technical challenges and management distraction that may adversely affect our operating profit.

On November 20, 2017, we launched a new high-throughput satellite, or HTS, communications service that makes use of Intelsat's Global IntelsatOne Flex managed services and also incorporates SKY-Perfect JSAT capacity. We also operate a global network of leased satellite transponders and terrestrial teleports in cooperation with ViaSat, Inc. We anticipate that the HTS network may eventually significantly reduce costs and enhance the capabilities of the satellite communications services that we offer to our customers. In the short term, however, the launch of the HTS network has resulted and will result in additional operating costs arising from the need to operate both the HTS network and the legacy network. The operation of the HTS network may also present technical challenges arising from Intelsat's use of the relatively new iDirect Velocity technology for the coding and modulation of satellite signals. Further, the operational requirements associated with the HTS network are likely to require significant attention from our management, marketing, sales, and technical teams, potentially distracting them from other opportunities to further develop our services and increase our customer base. Finally, our current focus on the HTS network creates potential risks with respect to the continued operation of our existing satellite communications network and our contractual arrangement with ViaSat and satellite operators. The contractual arrangement with ViaSat and satellite operators will need to be phased out over a period of several years, but the reliability of the existing satellite network will need to be maintained during the entirety of the wind-down period.

Our financial results may be adversely affected by changes in accounting principles applicable to us.

Generally accepted accounting principles in the United States, or U.S. GAAP, are subject to modification and interpretation by the Financial Accounting Standards Board, or the FASB, the SEC, and other bodies formed to promulgate and interpret accounting principles. For example, in May 2014, the FASB issued Accounting Standards Codification Update No. 2014-09, Revenue from Contracts with Customers (Topic 606), which substantially revised revenue recognition guidance under U.S. GAAP. We implemented this new revenue standard in the first quarter of 2018. The adoption of this new standard is having a material impact on our consolidated financial statements, including expected delays in recognition of revenue for certain mini-VSAT Broadband services and hardware contracts and expected balance sheet impacts relating to accounts receivable, contract assets and contract liabilities. These or other changes in accounting principles are adversely affecting our reported financial results, including a meaningful increase to our accumulated deficit upon adoption. Moreover, our system of internal controls was originally designed to address previous standards for revenue recognition (Topic 605), and the modifications we have made to our internal controls to address the new standard may be insufficient to implement the new standard accurately or in full. Any insufficiencies or errors in implementation could lead to mistakes in, or delays in filing, our consolidated financial statements as well as deficiencies or weaknesses in our internal control over financial reporting and our disclosure controls and procedures, any of which could lead to additional accounting, legal and other expenses, potential restatements, loss of investor confidence, enforcement actions by governmental authorities, securities class actions and other adverse consequences.

Our revenues and results of operations have been and may continue to be adversely impacted by economic turmoil in the markets we serve, political events, macroeconomic conditions, credit tightening and associated declines in consumer and enterprise spending.

Economic conditions in the markets we serve have experienced significant turmoil over the last several years, including slow economic activity, tight credit markets, inflation and deflation concerns, low consumer confidence, limited capital spending, adverse business conditions, war and refugee crises in the Middle East and Europe, terrorist attacks, the United Kingdom vote to leave the European Union, the change in presidential administration and government priorities, and liquidity concerns. These conditions can make it difficult for businesses, governments and consumers to accurately forecast and plan future activities. Many governments, including the US government, are experiencing significant deficits that have caused and may continue to cause them to curtail spending significantly and/or reallocate funds away from defense programs. There can be no assurances that government programs to improve economic conditions will be effective. As a result of these and other factors, customers and government entities could continue to slow or suspend spending on our products and services. We may also incur increased credit losses and need to further increase our allowance for doubtful accounts, which would have a negative impact on our earnings and financial condition.

We cannot predict the timing, duration, or ultimate impact of the turmoil in our markets. We expect our business to continue to be adversely impacted by this turmoil to varying degrees and for varying amounts of time, in all our geographic markets.

Changes in U.S. trade policy, including changes to existing trade agreements and any resulting changes in international trade relations, may have a material adverse effect on us.

The U.S. administration is altering the U.S.'s approach to international trade and has indicated its intent to renegotiate, or potentially terminate, certain existing bilateral or multi-lateral trade agreements and treaties with foreign countries. In addition, the U.S. administration has initiated or is considering imposing tariffs on certain foreign goods, and certain foreign governments have instituted or are considering imposing retaliatory tariffs on certain U.S. goods. It is unclear what the U.S. government or foreign governments will or will not do with respect to tariffs or other international trade agreements and policies. A trade war or other governmental action related to tariffs or international trade agreements or policies could reduce demand for our products and services, increase our costs, reduce our profitability, adversely impact our supply chain or otherwise have a material adverse effect on our business and results of operations.

Decline in oil prices may continue to adversely affect our revenues and profitability.

Oil prices have declined significantly since the peak in 2014. West Texas Intermediate oil prices dropped from a high of $107.26 per barrel on June 20, 2014 to a low of $26.21 per barrel on February 11, 2016. Customers of our mobile satellite business include offshore support vessel companies that participate in or depend on the offshore oil industry. Although prices have recovered somewhat in recent periods, the declines in worldwide oil prices have had a significant impact on the financial performance of companies in this sector of the economy, and as a result demand for new products and services has declined severely during and since 2015 as they have sought to reduce expenditures. In addition, we have experienced a higher customer churn rate primarily attributed to customers that operate in this sector, where the sale, decommissioning, or laying up of vessels has led to a higher rate of airtime plan terminations and suspensions. These trends could continue to limit or reduce demand for our mobile connectivity products and services from companies in this sector, which could continue to adversely affect our revenues and profitability.

Our financial performance is impacted by U.S. government contracts, which are subject to uncertain levels of funding and termination.

We have historically sold a substantial portion of our TACNAV and FOG products and services to the U.S. government and its contractors. We are unable to predict the impact on our business of the change in Presidential administration and recently enacted tax reform, which may lead to significant budget deficits and an overall reduction in federal spending. A reduction in sales to the U.S. government or its contractors, whether due to lack of funding, for convenience or otherwise, or the occurrence of delays, could negatively impact our results of operations and financial condition.

The funding of U.S. government programs is subject to congressional appropriations. Congress generally appropriates funds on a fiscal year basis even though a program may extend over several fiscal years. Consequently, programs are often only partially funded initially and additional funds are committed only as Congress makes further appropriations. Changes in the White House and the composition of Congress may disrupt or delay appropriations for upcoming periods. If appropriations for any program in which we participate become unavailable, or are reduced or delayed, our contract or subcontract under such program may be terminated or adjusted by the government, which could have a negative impact on our future sales under such contract or subcontract. When a formal appropriation bill has not been signed into law before the end of the U.S. government's fiscal year, which has become more frequent in recent years, Congress may pass a continuing resolution that authorizes agencies of the U.S. government to continue to operate, generally at the same funding levels from the prior year, but that typically does not authorize new spending initiatives, during this period. Appropriations can also be impacted by other budgetary considerations, such as failure to increase the statutory debt ceiling of the U.S. government. During such periods (or until the regular appropriation bills are passed), delays can occur in procurement of products and services due to lack of funding, and these delays can affect our results of operations during the period of delay.

Appropriations can also be affected by legislation that addresses larger budgetary issues of the U.S. government. For example, future federal sequestration measures could continue to adversely affect federal spending across the U.S. government, including the Department of Defense, and we expect that these measures will continue to limit or reduce defense spending.

In addition, U.S. government contracts generally also permit the government to terminate the contract, in whole or in part, without prior notice, at the government's convenience or for default based on performance. Government customers can also decline to exercise previously disclosed contract options. If one of our contracts is terminated for convenience, we would generally be entitled to payments for our allowable costs and would receive some allowance for profit on the work performed. If one of our contracts is terminated for default, we would generally be entitled to payments for our work that has been accepted by the government. A termination arising out of our default could expose us to liability and adversely affect our ability to obtain future contracts and orders. Furthermore, on contracts for which we are a subcontractor and not the prime contractor, the U.S. government could terminate the prime contract for convenience or otherwise, irrespective of our performance as a subcontractor.

We must generate a certain level of sales of the TracPhone V-HTS and V-IP series products and our mini-VSAT Broadband service in order to maintain or improve our service gross margins.

As a result of our mini-VSAT Broadband network infrastructure, our cost of service sales includes certain fixed costs that do not generally vary with the volume of service sales, and we have almost no ability to reduce these fixed costs in the short term. These fixed costs have increased significantly each year as we have further expanded our network to accommodate additional subscriber demand and/or coverage areas, and we expect that this trend will continue in 2018 and beyond, particularly as we establish and expand our new high throughput satellite, or HTS, network. Sales of our TracPhone V-IP series products declined from 2016 to 2017, continuing through the first half of 2018 due to our introduction of TracPhone V-HTS and our AgilePlans. If sales of our TracPhone V-HTS and V-IP series products and the mini-VSAT Broadband service, including through our new AgilePlans subscription model, do not generate the level of revenue that we expect or if those revenues decline, our service gross margins may continue to decline. As our market share has increased, we have also experienced a general increase in customer termination and suspension rates, compounded by accelerated declines in sales for vessels servicing the oil supply market with some bulk carriers, and lower unit sales of our mobile connectivity hardware, both in the United States and Europe. The failure to improve our mini-VSAT Broadband service gross margins and unit or subscriber sales would have a material adverse effect on our overall profitability.

Competition may limit our ability to sell our mobile connectivity products and services and inertial navigation products.

The mobile connectivity markets and defense navigation and inertial navigation markets in which we participate are very competitive, and we expect this competition to persist and intensify in the future. We may not be able to compete successfully against current and future competitors, which could impair our ability to sell our products and services. For example, improvements in the performance of lower-cost gyros by competitors could potentially jeopardize sales of our FOGs and FOG-based systems. As our market share in the mobile satellite communication market has grown, competition has intensified significantly, most notably from companies that seek to compete primarily on price. These companies may continue to implement price reductions and discounts for both products and services, which have required us to reduce our prices or offer discounts in order to maintain or increase our market share. Some of our VSAT competitors have also leveraged partnerships amongst themselves in order to capture larger combined market share. We anticipate that this trend of substantial competition will continue. Further, some of the companies that we depend on to supply us with capacity on satellite communications networks may vertically integrate by introducing their own products and services in competition with our products and services, thus potentially incentivizing them to refrain from providing satellite network capacity to us, or to make it available only on less favorable terms.

In the marine market for satellite TV equipment, we compete primarily with Intellian, Cobham SATCOM, Orbit Communication Systems, RayMarine (Intellian made), KNS, and Sea King (King Controls).

In the marine market for voice, fax, data, and Internet communications equipment, we compete primarily with Intellian, Cobham SATCOM, Orbit Communication Systems, Jotron AS, KNS Inc., Inmarsat, AddValue, and Iridium Satellite LLC.

In the marine market for high-speed voice, fax, data, and Internet services, we compete primarily with Inmarsat, Marlink, Speedcast, and Global Eagle Entertainment. We also face competition from providers of low-speed data services, which include Inmarsat, Globalstar LP, and Iridium Satellite LLC.

In the market for land mobile satellite TV equipment, we compete primarily with King Controls and Winegard Company.

In the markets for media content, the KVH Media Group competes primarily with Swank Motion Pictures and NewspaperDirect Inc., and Videotel competes with Seagull AS.

In the inertial navigation markets, we compete primarily with Honeywell International Inc., Northrop Grumman Corporation, Goodrich Aerospace, IAI, Fizoptica, SAGEM, and Systron Donner Inertial.

Among the factors that may affect our ability to compete in our markets are the following:

- many of our primary competitors are well-established companies that generally have substantially greater financial, managerial, technical, marketing, personnel and other resources than we do, which help them to compete more effectively in the market for mobile broadband solutions for larger fleets of vessels;
- the infrastructure costs for potential customers to switch from an existing service provider to our service may create disincentives for customers to enter into agreements for our services, even if those services are more attractive or cost effective;
- many of our prime competitors have well-established and/or growing partner programs, which pose a threat of multiplying their market influence;
- product and service improvements, new product and service developments or price reductions by competitors may weaken customer acceptance of, and reduce demand for, our products and services;
- new technology or market trends may disrupt or displace a need for our products and services;
- our competitors may have access to a broader array of media content than we do, which may cause customers to prefer competitors' media offerings; and
- our competitors may have lower production costs than we do, which may enable them to compete more aggressively in offering discounts and other promotions.

The emergence of a competing small maritime VSAT antenna and complementary service or other similar service could reduce the competitive advantage we believe we currently enjoy with our smaller TracPhone V-IP series antennas and Ku-band mini-VSAT Broadband service, or with our TracPhone V11-IP antenna and our C/Ku-band mini-VSAT Broadband service.

Our TracPhone V-HTS and V-IP systems offer customers a range of benefits due to their integrated design, hardware costs that are lower than existing maritime Ku-band VSAT systems, and broadband technology. We currently compete against companies that offer established maritime Ku-band VSAT service using, in some cases, antennas 1-meter in diameter or larger. While we are unaware of any company offering a 37-cm VSAT solution comparable to our TracPhone V3-IP, we are encountering regional competition from companies offering 60-cm VSAT systems and services, which are comparable in size to our TracPhone V7-IP. Likewise, our TracPhone V11-IP, at 1.1-meter in diameter, is approximately 85% smaller and lighter than competing C-band maritime VSAT systems, which use antennas in excess of 2.4-meters in diameter to provide similar global services. We are unaware of any competitor currently offering a similar size solution for global C-band coverage, but any introduction of such a product could adversely impact our success. In addition, other companies could replicate some of the distinguishing features of our TracPhone V-HTS and V-IP series products, which could potentially reduce the appeal of our solution, increase price competition, and adversely affect sales. For example, in early 2016, Inmarsat launched its Fleet Xpress service, a global Ka-band mobile VSAT service that Inmarsat claims is faster and has a lower price per megabit than existing Ku-band services.This service may adversely impact sales of our mini-VSAT Broadband service and related equipment. Our arrangement to use the IntelsatOne Flex service for our HTS network is not exclusive, and competitors' use of this service could also adversely impact sales. Moreover, consumers may choose other services such as FleetBroadband or Iridium OpenPort for their service coverage at potentially lower hardware costs despite higher service costs and slower data rates.

If we are unable to improve our existing mobile connectivity and inertial navigation products and services and develop new, innovative products and services, our sales and market share may decline.

The markets for mobile connectivity products and services and inertial navigation products and services are each characterized by rapid technological change, frequent new product innovations, changes in customer requirements and expectations, and evolving industry standards. For example, Inmarsat is now selling its latest-generation Fleet Xpress satellite communications products and services. If we fail to make innovations in our existing products and services and reduce the costs of our products and services in a timely way, our market share may decline. For example, the introductions of our new TracVision TV-series antennas in 2014 occurred later than we had anticipated, which we believe led certain customers to purchase competing products. Products or services using new technologies, or emerging industry standards, could render our products and services obsolete. If our competitors successfully introduce new or enhanced products or services that eliminate technological advantages our products or services may have in a market or otherwise outperform our products or services, or are perceived by consumers as doing so, we may be unable to compete successfully in the markets affected by these changes.

We are devoting significant resources to research and development efforts that may be unsuccessful.

Research and development in our industry is inherently complex and uncertain, and our current and anticipated research and development projects may not achieve the results we seek. For example, we are currently investing in the development of a new, low-cost FOG for the autonomous vehicle market that will satisfy rigorous performance expectations but that can be manufactured at a significantly lower cost than our current FOGs. We are also seeking to develop enhancements to our current generation of TACNAV products. As with all development projects, we may encounter unforeseen technical challenges, delays, cost overruns, licensing requirements or other problems that prevent us from achieving our goals, as a result of which we could lose significant market opportunities. Our research and development expenses decreased 1% from 2016 to 2017, and 3% from the first six months of 2017 to the first six months of 2018, and the capital resources that we can devote to our research and development efforts may be insufficient to achieve our goals. Our efforts may not result in any viable products or may result in products whose performance, features, price or availability may not be attractive to customers. As a result, our efforts may not result in products that generate meaningful revenues in the near term, or at all. We may expend a significant amount of resources in unsuccessful research and development efforts, and any failure to achieve our research and development goals may harm our reputation with customers or otherwise adversely affect our business, financial condition and results of operations.

The purchasing and delivery schedules and priorities of the U.S. military and foreign governments are often unpredictable.

We sell our FOG systems and tactical navigation products and services to U.S. and foreign military and government customers, either directly or as a subcontractor to other contractors. These customers often use a competitive bidding process and have unique purchasing and delivery requirements, which often makes the timing of sales to these customers unpredictable. Factors that affect their purchasing and delivery decisions include:

- increasing budgetary pressures, which may reduce or delay funding for military programs;
- changes in modernization plans for military equipment;
- changes in tactical navigation requirements;
- global conflicts impacting troop deployment, including troop withdrawals;
- priorities for current battlefield operations;
- new military and operational doctrines that affect military equipment needs;
- sales cycles that are long and difficult to predict;
- shifting response time and/or delays in the approval process associated with the export licenses we must obtain prior to the international shipment of certain of our military products;
- delays in military procurement schedules; and
- delays in the testing and acceptance of our products, including delays resulting from changes in customer specifications.

These factors periodically cause substantial fluctuations in sales of our TACNAV and FOG products and services from period to period. For example, TACNAV product sales increased $0.9 million, or 67%, from the first six months of 2017 to the first six months of 2018, and sales of our TACNAV products decreased $10.3 million, or 69%, from 2016 to 2017. Similarly, sales of our FOG products increased $2.8 million, or 31%, from the first six months of 2017 to the first six months of 2018, and sales of our FOG products increased $2.8 million, or 16%, from 2016 to 2017. In October 2014, we received a $19.0 million TACNAV product and services contract with an international military customer which included program management and engineering services delivered through 2017 and hardware shipments that were completed in the third quarter of 2016. These large orders contribute to the unpredictability of our revenues from period to period. Government customers may change defense spending priorities at any time.

Sales of our FOG systems and TACNAV products generally consist of a few large orders, and the delay or cancellation of a single order could substantially reduce our net sales.

KVH products sold to customers in the defense industry are purchased through orders that can generally range in size from several hundred thousand dollars to more than thirty million dollars. For example, we received orders for TACNAV products and services of $3.5 million, $1.3 million, $1.4 million, $1.5 million, $4.3 million, $19.0 million, and $5.2 million in April 2017, November 2015, September 2015, May 2015, November 2014, October 2014 and May 2014, respectively. Orders of this size are often unpredictable and difficult to replicate. As a result, the delay or cancellation of a single order could materially reduce our net sales and results of operations. We routinely experience repeated and unanticipated delays in defense orders, which make our revenues and operating results less predictable. Because our inertial navigation products typically have relatively higher product gross margins than our mobile connectivity products, the loss of an order for inertial navigation products could have a disproportionately adverse effect on our results of operations.

Only a few customers account for a substantial portion of our inertial navigation revenues, and the loss of any of these customers could substantially reduce our net sales.

We derive a significant portion of our inertial navigation revenues from a small number of customers, many of whom are contractors for the U.S. government. In October 2014, we received a $19.0 million TACNAV product and services contract from an international military customer which included program management and engineering services delivered through 2017 and hardware shipments that occurred in 2015 and 2016. The loss of business from any of these customers or delays in orders could substantially reduce our net sales and results of operations and could seriously harm our business. Since we are often awarded a contract as a subcontractor to a major defense supplier that is engaged in a competitive bidding process as prime contractor for a major weapons procurement program, our revenues depend significantly on the success of the prime contractors with which we align ourselves.

Commercial sales of our inertial navigation products are unpredictable.

Fluctuating commercial sales of our inertial navigation products are making it more difficult to predict our future revenues. We have been marketing our inertial navigation products, particularly our FOG products and systems, to original equipment manufacturers for incorporation into commercial products, such as navigation and positioning systems for various applications, including precision mapping, dynamic surveying, self-driving and other autonomous vehicles, train location control and track geometry measurement systems, industrial robotics, and optical stabilization. Because we sell these products to original equipment manufacturers rather than end-users, we have less information about market trends and other developments affecting the buying patterns of end-users and, as a result, may be unable to forecast demand for these products accurately. Sales of FOGs for commercial applications increased from 2016 to 2017; however, sales can significantly increase or decrease quarter-to-quarter due to our customer mix. Moreover, sales of these products for commercial applications depend on the success of our customers' products, and any decline in sales of our customers' products would reduce demand for our products.

Our results of operations could be adversely affected by unseasonably cold weather, prolonged winter conditions, disasters or similar events.

Our leisure marine business is highly seasonal, and seasonality can also impact our commercial marine business. Historically, we have generated the majority of our leisure marine product revenues during the first and second quarters of each year, and these revenues typically decline in the third and fourth quarters of each year, compared to the first two quarters. Temporary suspensions of our airtime services typically increase in the third and fourth quarters of each year as boats are placed out of service during winter months. Our leisure marine business is also significantly affected by the weather. Unseasonably cool weather, prolonged winter conditions, hurricanes, unusual amounts of rain, and natural and other disasters may decrease boating, which could reduce our revenues. Specifically, we may encounter a decrease in new airtime activations as well as an increase in the number of cancellations or temporary suspensions of our airtime service.

We could derive an increasing portion of our revenues from commercial leases of mobile connectivity equipment, rather than sales, which could increase our credit and collection risk.

We are actively seeking to increase revenues from the commercial markets for our mini-VSAT Broadband service, particularly shipping companies and other companies that deploy a fleet of vessels. In marketing this service, we offer leasing arrangements for the TracPhone antennas to both commercial and leisure customers. If commercial leases become increasingly popular with our customers, we could face increased risks of default under those leases. Defaults could increase our costs of collection (including costs of retrieving or abandoning leased equipment) and reduce the amount we collect from customers, which could harm our results of operations. Moreover, fleet sales are likely to be less common than, and perhaps substantially larger than, our typical orders, which could lead to increased variability in our quarterly revenues and gross margin realization. Under ASC 606, product revenue for sales-type leases of our mini-VSAT equipment will be recognized throughout the lease term, which is typically three to five years.

Our ability to compete in the maritime airtime services market may be impaired if we are unable to provide sufficient service capacity to meet customer demand.

We currently offer our mini-VSAT Broadband service in the Americas, Europe, the Middle East, Africa, Asia-Pacific, and Australian and New Zealand waters. In the future, we may need to expand capacity, including under our new HTS network, in existing coverage areas to support our subscriber base. If we are unable to reach agreement with third-party satellite providers to support our mini-VSAT Broadband service and its technology or if transponder capacity is unavailable to meet growing demand in a given region, our ability to provide airtime services will be at risk and could reduce the attractiveness of our products and services.

Changes in foreign currency exchange rates may negatively affect our financial condition and results of operations.

Because of the scope of our foreign sales and foreign operations, we face significant exposure to movements in exchange rates for foreign currencies, particularly the pounds sterling and the euro. During 2017, the U.S. dollar weakened against certain foreign currencies, which increased our revenues reported in U.S. dollars and increased the reported value of our assets in foreign countries. However, if the U.S. dollar strengthens, our revenues denominated in foreign currencies but reported in U.S. dollars, as well as the reported value of our assets in foreign countries, would be commensurately lower.

We also have intragroup receivables and liabilities, such as loans, that can generate significant foreign currency effects. Changes in exchange rates, particularly the U.S. dollar against the pounds sterling, could lead to the recognition of unrealized foreign exchange losses.

Moreover, certain of our products and services are sold internationally in U.S. dollars; if the U.S. dollar strengthens, the relative cost of these products and services to customers located in foreign countries would increase, which could adversely affect export sales. In addition, most of our financial obligations, including payments under our outstanding debt obligations, must be satisfied in U.S. dollars. Our exposures to changes in foreign currency exchange rates may change over time as our business practices evolve and could result in increased costs or reduced revenue and could adversely affect our cash flow. Changes in the relative values of currencies occur regularly and may have a significant impact on our operating results. We cannot predict with any certainty changes in foreign currency exchange rates or the degree to which we can cost-effectively mitigate this exposure.

Brexit and political uncertainty in the United Kingdom and Europe could adversely affect our revenue and results of operations and disrupt our operations.

We have significant operations in the United Kingdom, including the major portion of our KVH Media Group and Videotel operations. The United Kingdom's intention to exit from the European Union, or Brexit, has caused significant political uncertainty in both the United Kingdom and the European Union. The impact of Brexit and the resulting turmoil on the political and economic future of the United Kingdom and the European Union is uncertain, and we may be adversely affected in ways we do not currently anticipate. Brexit may result in a significant change in the British regulatory environment, which would likely increase our compliance costs. Customers and other businesses may curtail expenditures, including for purchases of our products and services. We may find it more difficult to conduct business in the United Kingdom and the European Union, as Brexit may result in increased restrictions on the movement of capital, goods and personnel. Depending on the outcome of negotiations between the United Kingdom and the European Union regarding the terms of Brexit, we may decide to relocate or otherwise alter our European operations to respond to the new business, legal, regulatory, tax and trade environments that may result. Brexit may materially and adversely affect our relationships with customers, suppliers and employees and could result in decreased revenue, increased expenses, higher tariffs and taxes, and lower earnings and cash flow.

Tight credit availability, environmental concerns and ongoing low levels of consumer confidence are adversely affecting sales of our mobile satellite TV products.

Factors such as tight credit, environmental protection laws and ongoing low levels of consumer confidence can materially and adversely affect sales of larger vehicles and vessels for which our mobile satellite TV products are designed, such as yachts and recreational vehicles. Many customers finance their purchases of these vehicles and vessels, and tight credit availability can reduce demand for both these vehicles and vessels and our mobile satellite TV products. Moreover, in the current credit markets, financing for these purchases has sometimes been unavailable or more difficult to obtain. The increased cost of operating these vehicles and vessels can adversely affect demand for our mobile satellite TV products.

Our business has substantial indebtedness, which could restrict our business opportunities.

We currently have, and will likely continue to have, a substantial amount of indebtedness. Our indebtedness could, among other things, make it more difficult for us to satisfy our financial obligations, require us to use a large portion of our cash flow from operations to repay and service our debt or otherwise create liquidity problems, limit our flexibility to adjust to market conditions, place us at a competitive disadvantage and expose us to interest rate fluctuations. As of June 30, 2018, we had total debt outstanding of $43.6 million, which included $40.9 million in aggregate principal amount of indebtedness outstanding under our term note that matures in July 2019. As of June 30, 2018, there were no borrowings outstanding under the revolver and the full balance of $15.0 million was available for borrowing.

We expect to obtain the money to pay our expenses and pay the principal and interest on our indebtedness from cash flow from our operations and potentially from other debt or equity offerings. Accordingly, our ability to meet our obligations depends on our future performance and capital raising activities, which will be affected by financial, business, economic and other factors, many of which are beyond our control. If our cash flow and capital resources prove inadequate to allow us to pay the principal and interest on our debt and meet our other obligations, we could face substantial liquidity problems and might be required to dispose of material assets or operations, restructure or refinance our debt, which we may be unable to do on favorable terms, and forego attractive business opportunities. In addition, the terms of our existing or future debt agreements may restrict us from pursuing any of these alternatives.

The agreements governing our indebtedness subject us to various restrictions that may limit our ability to pursue business opportunities.

The agreements governing our indebtedness subject us to various restrictions on our ability to engage in certain activities, including, among other things, our ability to:

- acquire other businesses or make investments;
- raise additional capital;
- incur additional debt or create liens on our assets;
- pay dividends or make distributions;
- prepay indebtedness; and
- merge, dissolve, liquidate, consolidate, or dispose of all or substantially all of our assets.

These restrictions may limit or restrict our cash flow and our ability to pursue business opportunities or strategies that we would otherwise consider to be in our best interests.

Our secured credit facility contains certain financial and other restrictive covenants that we may not satisfy, and that, if not satisfied, could result in the acceleration of the amounts due under our secured credit facility and the limitation of our ability to borrow additional funds in the future.

The agreements governing our secured credit facility subject us to various financial and other restrictive covenants with which we must comply on an ongoing or periodic basis. These include covenants pertaining to a maximum consolidated leverage ratio, a minimum consolidated fixed charge coverage ratio, covenants requiring the mandatory prepayment of amounts outstanding under the term loan and the revolver under specified circumstances, including (i) 100% of the net cash proceeds from certain dispositions to the extent not reinvested in our business within a stated period, (ii) 50% of the net cash proceeds from stated equity issuances, and (iii) 100% of the net cash proceeds from certain receipts of more than $250,000 outside the ordinary course of business, and limits on capital expenditures. If we violate any of these covenants, we may suffer a material adverse effect. Most notably, our outstanding debt under our secured credit facility could become immediately due and payable, our lenders could proceed against any collateral securing such indebtedness, and our ability to borrow additional funds in the future could be limited or terminated. Alternatively, we could be forced to refinance or renegotiate the terms and conditions of our secured credit facility, including the interest rates, financial and restrictive covenants and security requirements of the secured credit facility, on terms that may be significantly less favorable to us.

In March 2017, we entered into an amendment to our secured credit facility. This amendment included (i) an increase to the Maximum Consolidated Leverage Ratio from 1.25:1.00 to 1.50:1.00, (ii) an increase to the lowest rate applicable to borrowing under the credit agreement from 1.50% to 1.75%, (iii) an amendment to the amortization schedule for the term loan to reduce the amount of required quarterly principal repayments to $575,000 and (iv) an amendment to the definition of Consolidated Fixed Charges Coverage Ratio to exclude any capital expenditures related to growth or revenue generating initiatives from the calculation. As a condition to the amendment, we made a principal repayment of $6.0 million on the term loan.

A default under agreements governing our indebtedness could result in a default and acceleration of indebtedness under other agreements.

Certain agreements governing our indebtedness contain cross-default provisions whereby a default under one agreement could result in a default and acceleration of our repayment obligations under other agreements. If a cross-default were to occur, we may not be able to pay our debts or borrow sufficient funds to refinance them. Even if new financing were available, it may not be available on favorable terms. If some or all of our indebtedness is in default for any reason, our business, financial condition, and results of operations could be materially and adversely affected.

Our mobile satellite products currently depend on satellite services, gateway teleports and terrestrial networks provided by third parties, and a disruption in those services could adversely affect sales.

Our satellite antenna products include the equipment necessary to utilize satellite services; we do not own the satellites that directly provide two-way satellite communications or the terrestrial networks that interconnect our facilities with the satellite teleports that communicate with the satellites. We currently offer satellite television products compatible with the DIRECTV and DISH Network services in the United States, the Bell TV service in Canada, the Sky Mexico service and various other regional satellite TV services in other parts of the world.

SES, Eutelsat, Sky Perfect-JSAT, Telesat, EchoStar, Intelsat and Star One currently provide the satellite capacity to support the mini-VSAT Broadband service and our TracPhone V-IP series products. Intelsat also currently provides our C-Band satellite coverage. In addition, we have agreements with various teleports and Internet service providers around the globe to support the mini-VSAT Broadband service. The terrestrial fiber links that we use to connect with the Internet and to move our voice and data services between our facilities and the various satellite earth stations that support our services are provided to us through numerous service providers, some of which have contractual relationships with our satellite service providers and not directly with us. We rely on Inmarsat for satellite communications services for our FleetBroadband- and FleetOne-compatible TracPhone products. We also have an arrangement with Iridium for additional satellite communications services that we make available to our customers as a backup option to provide communications redundancy with our primary service offerings.

We exercise little or no control over these third-party providers of satellite, teleport and terrestrial network services, which increases our vulnerability to problems with the services they provide. Due to our reliance on these service providers, when problems occur, it may be difficult to identify the source of the problem. Service disruption or outages, regardless of whether they are caused by our service, the equipment or services of our third-party service providers, or our customers' or their equipment and systems, may result in loss of market acceptance of our service, and any necessary repairs or other remedial actions may cause us to incur significant costs and expenses. Any failure on the part of third-party service providers to achieve or maintain expected performance levels, stability and security could harm our relationships with our customers, result in claims for credits or damages, damage our reputation, significantly reduce customer demand for our solution and seriously harm our financial condition and operating results.

If customers become dissatisfied with the programming, pricing, service, availability or other aspects of any of these satellite services, or if any one or more of these services becomes unavailable for any reason, we could suffer a substantial decline in sales of our satellite products. There may be no alternative service provider available in a particular geographic area, and our modem or other technology may not be compatible with the technology of any alternative service provider that may be available. Even if available, delays caused by switching our technology to another service provider, if available, and qualifying this new service provider could materially harm our customer relationships, business, financial condition and operating results In addition, the unexpected failure of a satellite could disrupt the availability of programming and services, which could reduce the demand for, or customer satisfaction with, our products.

We rely upon third-party communications technology and satellite providers to permit two-way broadband Internet via our TracPhone V-HTS and V-IP series antennas, and any disruption in the availability of this technology could adversely affect sales.

Our mini-VSAT Broadband service relies on broadband communications technology developed by ViaSat and IntelSat for use with satellite capacity controlled by SES, Eutelsat, Sky Perfect-JSAT, Telesat, Echostar, Intelsat and Star One. Our TracPhone broadband satellite terminals combine our stabilized antenna technology with this third-party mobile broadband technology, including modems, to provide two-way broadband Internet service. This third-party technology is also integrated within the satellite hubs that support this service. Sales of the TracPhone V-HTS and V-IP series products and our mini-VSAT Broadband service could be disrupted if we fail to receive approval from regulatory authorities to provide our service in the waters of various countries where our customers operate or if there are issues with the availability of the third-party hardware. Moreover, satellite communications technology may continue to evolve, which could reduce the relative attractiveness of the third-party technology we currently offer, and the hardware we use may cease to be compatible with changes in satellite service offerings. As we transition customers to our new HTS service over the next several years, we may encounter technological challenges, increased expenses, customer dissatisfaction, inventory obsolescence, interruptions in supply, disruptions in current relationships or arrangements and unforeseen obstacles, any of which could have a material adverse effect on our mobile satellite business, revenues and profitability.

We have single dedicated manufacturing facilities for each of our mobile connectivity and inertial navigation product categories, and any significant disruption to a facility could impair our ability to deliver our products.

Excluding the products manufactured by Videotel and KVH Media Group, which are manufactured in the United Kingdom, we currently manufacture all of our mobile connectivity products at our manufacturing facility in Middletown, Rhode Island, and the majority of our inertial navigation products at our facility in Tinley Park, Illinois. Some of our production processes are complex, and we may be unable to respond rapidly to the loss of the use of either production facility. For example, our production facilities use some specialized equipment that may take time to replace if they are damaged or become unusable for any reason. In that event, shipments would be delayed, which could result in customer or dealer dissatisfaction, loss of sales and damage to our reputation. Finally, we have only a limited capability to increase our manufacturing capacity in the short term. If short-term demand for our products exceeds our manufacturing capacity, our inability to fulfill orders in a timely manner could also lead to customer or dealer dissatisfaction, loss of sales and damage to our reputation.

We depend on sole or limited source suppliers, and any disruption in supply could impair our ability to deliver our products on time or at expected cost.

We obtain many key components for our products from third-party suppliers, and in some cases we use a single or a limited number of suppliers. Any interruption in supply could impair our ability to deliver our products until we identify and qualify a new source of supply, which could take several weeks, months or longer and could increase our costs significantly. Suppliers might change or discontinue key components, which could require us to modify our product designs. For example, in the past, we have experienced changes in the chemicals used to coat our optical fiber, which changed its characteristics and thereby necessitated design modifications. Department of Defense regulations requiring government contractors to implement processes to avoid counterfeit parts may require us to find new sources of materials or components if the current supplier cannot meet the requirements. In general, we do not have written long-term supply agreements with our suppliers but instead purchase components through purchase orders, which expose us to potential price increases and termination of supply without notice or recourse. It is generally not our practice to carry significant inventories of product components, and this could magnify the impact of the loss of a supplier. If we are required to use a new source of materials or components, it could also result in unexpected manufacturing difficulties and could affect product performance and reliability. In addition, from time to time, lead times for certain components can increase significantly due to imbalances in overall market supply and demand. This, in turn, could limit our ability to satisfy the demand for certain of our products on a timely basis and could result in some customer orders being rescheduled or canceled.

We may continue to increase the use of international suppliers to source components for our manufacturing operations, which could disrupt our business.

Although we have historically manufactured and sourced raw materials for the majority of our products domestically, in order for us to compete with lower priced competing products while also improving our profitability, in some instances we have found it desirable to source raw materials and manufactured components and assemblies from Europe, Asia, and South America. Reliance on foreign manufacturing and/or raw material supply has lengthened our supply chain and increased the risk that a disruption in that supply chain could have a material adverse effect on our operations and financial performance.

We depend on cloud-based data services operated by third parties, and any disruption in the operation of these services could harm our business.

We host some of our content services and business records using various cloud-based data services operated by third parties. Any failure or downtime in one of these services could affect a significant percentage of our customers. Although we control and have access to our servers and all of the components of our network that are located in our internal facilities and certain of our external data facilities, we do not control the operation of external facilities. The providers of our data management services have no obligation to renew their agreements with us on commercially reasonable terms, or at all. If we are unable to renew these agreements on commercially reasonable terms, or if one or more of our data management service providers is acquired, closes, suffers financial difficulty or is unable to meet our growing capacity needs, we may be required to transfer our data to other services, and we may incur significant costs and service interruptions in connection with doing so, which could harm our reputation with our customers and adversely affect our revenues and results of operations.

Adverse economic conditions could result in financial difficulties or bankruptcy for any of our suppliers, which could adversely affect our business and results of operations.

The current state of worldwide economic conditions and tight credit could present challenges to our suppliers, which could result in disruptions to our business, increase our costs, delay shipment of our products or delivery of services, and impair our ability to generate and recognize revenue. To address their own business challenges, our suppliers may increase prices, reduce the availability of credit, require deposits or advance payments or take other actions that may impose a burden on us.

They may also reduce production capacity, slow or delay delivery of products, face challenges meeting our specifications or otherwise fail to meet our requirements. In some cases, our suppliers may face bankruptcy. We may be required to identify, qualify, and engage new suppliers, which would require time and the attention of management. Any of these events could impair our ability to deliver our products and services to customers in a timely and cost-effective manner, cause us to breach our contractual commitments or result in the loss of customers.

Our media and entertainment business relies on licensing arrangements with content providers, and the loss of or changes in those arrangements could adversely affect our business.

We distribute premium news, sports, movies, and music content for commercial and leisure customers in the maritime, hotel, and retail markets. We do not generate this content but instead license the content from third parties on a non-exclusive basis. We do not have long-term license agreements with any content provider. Accordingly, any content provider could terminate our existing arrangements with little or no advance notice or could adversely modify the terms of the arrangement, including initiating potential price increases. Further, the licenses we obtain are limited in scope, and any violation of the terms of a license could expose us to liability for copyright infringement. We pay license fees that are based in part on the revenue we generate from sublicenses, and our licensors generally have the right to audit our records to determine whether we have paid all necessary license fees. Failure to pay required license fees could result in any combination of termination of our license rights, penalties, or damages. The loss of content could adversely affect the attractiveness of our media and entertainment offerings, which could in turn adversely affect our revenues. Any increase in the cost of content could reduce the profitability of these offerings.

Any failure to maintain and expand our third-party distribution relationships may limit our ability to penetrate markets for mobile connectivity products and services.

We market and sell our mobile connectivity products and services through an international network of independent retailers, chain stores and distributors, as well as to manufacturers of marine vessels, recreational vehicles and buses.

Many of our distributors are also responsible for providing onsite support and installation for our products, which requires our distributors to employ highly skilled workers and maintain facilities in locations convenient to our customers, such as at maritime ports. We also expect our distributors to assist us in expanding internationally. Some of our distribution relationships are new, and our new distributors may not be successful in marketing and selling our products and services. In addition, our distribution partners do not have exclusive relationships with us and may sell products of other companies, including competing products, and are generally not required to purchase minimum quantities of our products. Our competitors may be able to cause our current or potential distributors to favor their services over ours, either through financial incentives, technological innovation, by offering a broader array of services to these service providers or otherwise, which could reduce the effectiveness of our use of these distributors. If we fail to maintain relationships with our current distributors, fail to develop relationships with new distributors in new and existing markets, or manage, train, or provide appropriate incentives to our existing distributors, or if our distributors are not successful in their sales efforts, sales of our products and services may decline and our operating results could be harmed.

Our international business operations expose us to a number of difficulties in coordinating our activities abroad and in dealing with multiple regulatory environments.

Historically, sales to customers outside the United States have accounted for a significant portion of our net sales. We derived 59%, 62%, 63%, and 67% of our revenues in the six months ended June 30, 2018 and the years ended December 31, 2017, 2016, and 2015, respectively, from sales to customers outside the United States. We have foreign sales offices in Denmark, the United Kingdom, Singapore, Hong Kong, Japan, Norway, Cyprus and the Philippines, as well as a subsidiary in Brazil that manages local sales. However, aside from these international sales offices, substantially all of our personnel and operations, particularly for our mobile connectivity equipment business and our inertial navigation business, are located in the United States. Our limited operations in foreign countries may impair our ability to compete successfully in international markets and to meet the service and support needs of our customers in countries where we have little to no infrastructure. We are subject to a number of risks associated with our international business activities, which may increase our costs and require significant management attention. These risks include:

- retaliatory and other tariffs;
- technical challenges we may face in adapting our mobile connectivity products to function with different satellite services and technology in use in various regions around the world;
- satisfaction of international regulatory requirements and delays and costs associated with procurement of any necessary licenses or permits;
- the potential unavailability of content licenses covering international waters and foreign locations;
- restrictions on the sale of certain inertial navigation products to foreign military and government customers;
- increased costs of providing customer support in multiple languages;
- increased costs of managing operations that are international in scope;
- potentially adverse tax consequences, including restrictions on the repatriation of earnings;
- protectionist laws and business practices that favor local competitors, which could slow our growth in international markets;
- potentially longer sales cycles, which could slow our revenue growth from international sales;
- potentially longer accounts receivable payment cycles and difficulties in collecting accounts receivable; and
- economic and political instability in some international markets.

We could incur additional legal compliance costs associated with our international operations and could become subject to legal penalties if we do not comply with certain regulations.

As a result of our international operations, we are subject to a number of legal requirements, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and the customs, export, trade sanctions and anti-boycott laws of the United States, including those administered by the U.S. Customs and Border Protection, the Bureau of Industry and Security, the Department of Commerce, the Department of State, and the Office of Foreign Assets Control of the Treasury Department, as well as those of other nations in which we do business. In addition, the governments of many of the countries where our customers use our products and services maintain licensing and regulatory requirements for the importation and use of satellite communications and reception equipment, including the use of such equipment in the country’s territorial waters, the transmission of satellite signals on certain radio frequencies, the transmission of voice over Internet services using such equipment, and, in some cases, the reception of certain video programming services. These laws and regulations are changing continuously, and compliance with these laws and regulations is complex. We incur significant costs identifying and maintaining compliance with applicable licensing and regulatory requirements. In addition, our training and compliance programs and our other internal control policies may be insufficient to protect us from acts committed by our employees, agents or third-party contractors. Any violation of these requirements by us or our employees, agents or third-party contractors may subject us to significant criminal and civil liability.

Exports of certain inertial navigation products are subject to the U.S. Export Administration Regulations and the International Traffic in Arms Regulations and require a license from the U.S. Department of State prior to shipment.

We must comply with the United States Export Administration Regulations and the International Traffic in Arms Regulations, or ITAR. Certain of our products have military or strategic applications and are on the munitions list of the ITAR and require an individual validated license in order to be exported to certain jurisdictions. Any changes in export regulations or reclassifications of our products may further restrict the export of our products, and we may cease to be able to procure export licenses for our products under existing regulations. The length of time required by the licensing process can vary, potentially delaying the shipment of products and the recognition of the corresponding revenue. Any restriction on the export of a product line or any amount of our products could cause a significant reduction in net sales.

We are subject to FCC rules and regulations, and any non-compliance could subject us to FCC enforcement actions, fines, loss of licenses and possibly restrictions on our ability to operate or offer certain of our services.

The satellite communications industry is regulated by the Federal Communications Commission in the United States and, as a result, we are subject to existing and potential FCC regulations relating to privacy, contributions to the Universal Service Fund, or USF, and other requirements. If we do not comply with FCC rules and regulations, we could be subject to FCC enforcement actions, substantial fines, penalties, loss of licenses and possibly restrictions on our ability to operate or offer certain of our services. Any enforcement action by the FCC, which may be a public process, could hurt our reputation in the industry, possibly impair our ability to sell our services to customers and could harm our business and results of operations.

Reform of federal and state USF programs could increase the cost of our service to our customers, diminishing or eliminating our pricing advantage.

The FCC has been considering reform or other modifications to its USF program. The way we calculate our contribution to USF may change if the FCC engages in reform or adopts other modifications. In April 2012, the FCC released a Further Notice of Proposed Rulemaking to consider reforms to the manner in which companies like us contribute to the federal USF program. In general, the Further Notice of Proposed Rulemaking indicates that the FCC is considering changes to the companies that should contribute, how contributions should be assessed, and methods to improve the administration of the system. We cannot predict the outcome of this proceeding or its impact on our business at this time. The changes in the leadership of the U.S. Government resulting from the federal election in 2016 may renew interest in completing this proceeding.

Should the FCC adopt new contribution mechanisms or otherwise modify contribution obligations that increase our contribution burden, we will either need to raise the amount we currently collect from our customers to cover this obligation or absorb the costs, which would reduce our profit margins. The attractiveness of our services may also be reduced as compared to the services of our competitors that do not appear to contribute to USF, or do not do so to the same extent that we do.

Privacy concerns and domestic or foreign laws and regulations may reduce demand for our services, increase our costs and harm our business.

Our company and our customers can potentially use our services to collect, use and store information, including personally identifiable information or other information treated as confidential, regarding the content and manner of usage of our services by them, their employees and maritime crews. Federal, state and foreign governments and agencies have adopted, are considering adopting, or may adopt laws and regulations regarding the collection, use, storage and disclosure of such information obtained from consumers and individuals, such as the European Union’s new General Data Protection Regulation, or the GDPR, which took effect in May 2018. The costs of compliance with, and other burdens imposed by, such laws and regulations that are applicable to us and the operations of our customers may limit the use and adoption of our services and reduce overall demand, and any non-compliance with these laws and regulations could lead to significant remediation expenses, fines, penalties or other regulatory liabilities such as orders or consent decrees forcing us to modify our privacy practices, as well as reputational damage or third-party lawsuits seeking damages or other relief. For example, the GDPR imposes a strict data protection compliance regime with penalties of up to the greater of 4% of worldwide revenue and €20 million.

Domestic and international legislative and regulatory initiatives may harm our ability, and the ability of our customers, to process, handle, store, use and transmit information, including demographic and personally identifiable information or other information treated as confidential, regarding individual users of the services, which could reduce demand for some of our services, increase our costs and force us to change our business practices. These laws and regulations are still evolving and are likely to be in flux and subject to uncertain interpretation for the foreseeable future. For example, under the GDPR, local data protection authorities have the ability to interpret the GDPR, which could create inconsistencies on a country-by-country basis. Our business could be harmed if legislation or regulations are adopted, interpreted or implemented in a manner that is inconsistent from country to country and inconsistent with our current policies and practices, or those of our customers. In addition, foreign data protection, privacy, and consumer protection laws and regulations, such as the GDPR, are often more stringent than those in the United States.

Acquisitions may disrupt our operations or adversely affect our results.

We evaluate strategic acquisition opportunities to acquire other businesses as they arise, such as our acquisitions of Videotel in July 2014 and KVH Media Group in May 2013. The expenses we incur evaluating and pursuing these and other such acquisitions could have a material adverse effect on our results of operations. For example, during 2014, we incurred significant expenses related to the acquisition of Videotel. If we acquire a business, we may be unable to manage it profitably or successfully integrate its operations with our own. Moreover, we may be unable to realize the strategic, financial, operational and other benefits we anticipate from any acquisition, and any acquisition may increase our overall operating expenses. Competition for acquisition opportunities could increase the price we pay for businesses we acquire and could reduce the number of potential acquisition targets. Further, our approach to acquisitions may involve a number of special financial and business risks, such as:

- entry into new and unfamiliar lines of business or markets, which may present challenges or risks that we did not anticipate;
- entry into new or unfamiliar geographic regions, including exposure to additional tax and regulatory regimes;
- increased expenses associated with the amortization of acquired intangible assets;
- increased exposure to fluctuations in foreign currency exchange rates;
- charges related to any potential acquisition from which we may withdraw;
- diversion of our management’s time, attention, and resources;
- loss of key acquired personnel;
- increased costs to improve or coordinate managerial, operational, financial, and administrative systems, including compliance with the Sarbanes-Oxley Act of 2002;
- dilutive issuances of equity securities;
- the assumption of legal liabilities; and
- losses arising from impairment charges associated with goodwill or intangible assets.

For example, we incurred additional expenses to implement internal control over financial reporting appropriate for a public company at Videotel and KVH Media Group, which previously operated as private companies not subject to U.S. generally accepted accounting principles.

If we cannot effectively manage changes in our rate of growth, our business may suffer.

We have previously expanded our operations to pursue existing and potential market opportunities, and we are continuing to expand our international operations. For example, we expanded our service offerings through the acquisitions of Videotel in 2014 and KVH Media Group in 2013. This growth placed a strain on our personnel, management, financial and other resources and increased our operating expenses. If any portion of our business grows more rapidly than we anticipate and we fail to manage that growth properly, we may incur unnecessary expenses, and the efficiency of our operations may decline. If we are unable to adjust our operating expenses on a timely basis in response to changes in revenue cycles, our results of operations may be harmed. To manage changes in our rate of growth effectively, we must, among other things:

- match our manufacturing facilities and capacity to demand for our products and services in a timely manner;
- secure appropriate satellite capacity to match changes in demand for airtime services in a timely manner;
- successfully attract, train, motivate and manage appropriate numbers of employees for manufacturing, sales, marketing and customer support activities;
- effectively manage our inventory and working capital;
- maintain the efficiencies within our operating, administrative, financial and accounting systems; and
- ensure that our procedures and internal controls are revised and updated to remain appropriate for the size and scale of our business operations.

We may be unable to hire and retain the skilled personnel we need to expand our operations.

To meet our growth objectives, we must attract and retain highly skilled technical, operational, managerial and sales and marketing personnel. If we fail to attract and retain the necessary personnel, we may be unable to achieve our business objectives and may lose our competitive position, which could lead to a significant decline in net sales. We face significant competition for these skilled professionals from other companies, research and academic institutions, government entities and other organizations.

Our success depends on the services of our executive officers.

Our future success depends to a significant degree on the skills and efforts of Martin Kits van Heyningen, our co-founder, President, Chief Executive Officer, and Chairman of the Board. If we lost the services of Mr. Kits van Heyningen, our business and operating results could be seriously harmed. We also depend on the ability of our other executive officers to work effectively as a team. The loss of one or more of our executive officers could impair our ability to manage our business effectively.

Our business may suffer if we cannot protect our proprietary technology.

Our ability to compete depends significantly upon our patents, copyrights, source code, and other proprietary technology. The steps we have taken to protect our technology may be inadequate to prevent others from using what we regard as our technology to compete with us. Our patents could expire or be challenged, invalidated or circumvented, and the rights we have under our patents could provide no competitive advantages. Existing trade secret, copyright, and trademark laws offer only limited protection. Customers or others with access to our proprietary or licensed media content could copy that content without permission or otherwise violate the terms of our customer agreements, which would adversely affect our revenues and could impair our relationships with content providers. In addition, the laws of some foreign countries do not protect our proprietary technology to the same extent as the laws of the United States, which could increase the likelihood of misappropriation. Furthermore, other companies could independently develop similar or superior technology without violating our intellectual property rights. Any misappropriation of our technology or the development of competing technology could seriously harm our competitive position, which could lead to a substantial reduction in net sales.

If we resort to legal proceedings to enforce our intellectual property rights, the proceedings could be burdensome, disruptive and expensive, distract the attention of management, and there can be no assurance that we would prevail.

Also, we have delivered certain technical data and information to the U.S. government under procurement contracts, and it may have unlimited rights to use that technical data and information. There can be no assurance that the U.S. government will not authorize others to use that data and information to compete with us.

Claims by others that we infringe their intellectual property rights could harm our business and financial condition.

Our industries are characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. We cannot be certain that our products do not and will not infringe issued patents, patents that may be issued in the future, or other intellectual property rights of others.

We do not generally conduct exhaustive patent searches to determine whether the technology used in our products infringes patents held by third parties. In addition, product development is inherently uncertain in a rapidly evolving technological environment in which there may be numerous patent applications pending, many of which are confidential when filed, with regard to similar technologies.

From time to time we have faced claims by third parties that our products or technology infringe their patents or other intellectual property rights, and we may face similar claims in the future. For example, we were sued for patent infringement in 2015, and we settled this claim in January 2016 with a payment of cash to Advanced Media Network. Any claim of infringement could cause us to incur substantial costs defending against or settling the claim, even if the claim is invalid, and could distract the attention of our management. If any of our products are found to violate third-party proprietary rights, we may be required to pay substantial damages. In addition, we may be required to re-engineer our products or obtain licenses from third parties to continue to offer our products. Any efforts to re-engineer our products or obtain licenses on commercially reasonable terms may not be successful, which would prevent us from selling our products, and, in any case, could substantially increase our costs and have a material adverse effect on our business, financial condition and results of operations.

Cybersecurity breaches could disrupt our operations, expose us to liability, damage our reputation, and require us to incur significant costs or otherwise adversely affect our financial results.

We are highly dependent on information technology networks and systems, including the Internet, to securely process, transmit and store electronic information, including personal information of our customers. We also retain sensitive data, including intellectual property, proprietary business information, personally identifiable information, credit card information, and usage data of our employees and customers on our computer networks. Although we take certain protective measures and endeavor to modify them as we believe circumstances warrant, invasive technologies and techniques continue to evolve rapidly, and our computer systems, software and networks are vulnerable to disruption, shutdown, unauthorized access, misuse, erasure, alteration, employee error, phishing, computer viruses or other malicious code, and other events that could have a security impact. Any security breach may compromise information stored on our networks and may result in significant data losses or theft of our, our customers', our business partners' or our employees' sensitive information. Public reports suggest that cybersecurity incidents are happening more often and with increasingly severe consequences. We may be required to expend substantial additional resources to augment our efforts to address potential cybersecurity risks, which could adversely affect our results of operations.

If any of these events were to occur, they could disrupt our operations, distract our management, cause us to lose existing customers and fail to attract new customers, as well as subject us to regulatory actions, litigation, fines, damage to our reputation or competitive position, or orders or decrees requiring us to modify our business practices, any of which could have a material adverse effect on our financial position, results of operations or cash flows.

Our media business may expose us to claims regarding our media content.

Our media business produces training films and eLearning computer-based training courses, including programs on safety, maintenance, security and regulatory compliance, and also provides commercially licensed maritime charting and navigation information. Our efforts to ensure the accuracy and reliability of the content we provide could be inadequate, and we could face claims of liability based on this content. Contractual and other measures we take to limit our liability may be inadequate to protect us from these claims. Although we have certain rights of indemnification from third parties for certain portions of the content we provide to customers, it may be time-consuming and expensive to enforce our rights, and the third parties may lack the resources to fulfill their obligations to us. Further, our insurance coverage is subject to deductibles, exclusions and limitations of coverage, and there can be no assurance that our insurance coverage would be available to satisfy any claims against us. Any such claims may have a material adverse effect on our financial condition and results of operations.

Fluctuations in our quarterly net sales and results of operations could depress the market price of our common stock.

We have at times experienced significant fluctuations in our net sales and results of operations from one quarter to the next. Our future net sales and results of operations could vary significantly from quarter to quarter due to a number of factors, many of which are outside our control. Accordingly, you should not rely on quarter-to-quarter comparisons of our results of operations as an indication of future performance. It is possible that our net sales or results of operations in a quarter will fall below the expectations of securities analysts or investors. If this occurs, the market price of our common stock could fall significantly. Our results of operations in any quarter can fluctuate for many reasons, including:

- changes in demand for our mobile connectivity products and services and inertial navigation products and services, including as a result of our AgilePlans;
- the timing and size of individual orders from military customers, which may be delayed or canceled for various reasons;
- the mix of products and services we sell, including the mix of fixed rate and metered contracts for airtime services;

- our ability to manufacture, test and deliver products in a timely and cost-effective manner, including the availability and timely delivery of components and subassemblies from our suppliers;
- our success in winning competitions for orders;
- the timing of new product introductions by us or our competitors;
- the scope of our investments in research and development;
- expenses incurred in pursuing acquisitions;
- expenses incurred in expanding, maintaining, or improving our mini-VSAT Broadband network;
- market and competitive pricing pressures;
- unanticipated charges or expenses, such as increases in warranty claims;
- general economic climate; and
- seasonality of pleasure boat and recreational vehicle usage.

In 2018, in light of our current investments in research and development and the establishment and expansion of our new HTS network, we expect that our operating expenses in each quarter of 2018 could increase significantly over the amount we incurred in the comparable quarter of 2017.

A large portion of our expenses, including expenses for network infrastructure, facilities, equipment, and personnel, are relatively fixed. Accordingly, if our net sales decline or do not grow as much or as quickly as we anticipate, we might be unable to maintain or improve our operating margins. Any failure to achieve anticipated net sales could therefore significantly harm our operating results for a particular fiscal period.

The market price of our common stock may be volatile.

Our stock price has historically been volatile. During the period from January 1, 2015 to June 30, 2018, the trading price of our common stock ranged from $7.31 to $15.79. Many factors may cause the market price of our common stock to fluctuate, including:

- variations in our quarterly results of operations;
- the introduction of new products and services by us or our competitors;
- changing needs of military customers;
- changes in estimates of our performance or recommendations by securities analysts;
- the hiring or departure of key personnel;
- acquisitions or strategic alliances involving us or our competitors;
- market conditions in our industries; and
- the global macroeconomic and geopolitical environment.

In addition, the stock market can experience extreme price and volume fluctuations. Major stock market indices experienced dramatic declines in 2008, in the first quarter of 2009 and in January 2016. These fluctuations are often unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the market price of our common stock. When the market price of a company's stock drops significantly, stockholders often institute securities litigation against that company. Any such litigation could cause us to incur significant expenses defending against the claim, divert the time and attention of our management and result in significant damages.

We may have exposure to additional tax liabilities, which could negatively impact our income tax expense, net income and cash flow.

We are subject to income taxes and other taxes in both the U.S. and the foreign jurisdictions in which we currently operate. The determination of our worldwide provision for income taxes and current and deferred tax assets and liabilities requires significant judgment and estimation. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are subject to regular review and audit by both domestic and foreign tax authorities and to the prospective and retrospective effects of changing tax regulations and legislation. Although we believe our tax estimates are reasonable, the ultimate tax outcome may materially differ from the tax amounts recorded in our consolidated financial statements and may materially affect our income tax benefit or expense, net loss or income, and cash flows in the period in which such determination is made. As of June 30, 2018, we had liabilities for uncertain tax positions of $1.4 million.

Deferred tax assets are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for operating losses and tax credit carry forwards. In certain instances, a valuation allowance may be recorded to reduce certain deferred tax assets to estimated realizable value. We review our deferred tax assets and valuation allowance requirements on a quarterly basis. If, during our quarterly reviews of our deferred tax assets, we determine that it is more likely than not that we will not be able to generate sufficient future taxable income to realize the net carrying value of deferred tax assets, we will record a valuation allowance to reduce the tax assets to estimated realizable value, which could result in a material income tax charge. As part of our review, we consider positive and negative evidence, including cumulative results of recent years. As of June 30, 2018, we had recorded $15.6 million of valuation allowances against our gross deferred tax assets of $16.0 million.

Our effective tax rate fluctuates, and we may incur obligations in tax jurisdictions in excess of accrued amounts.

As a global company, we are subject to taxation in numerous countries, states and other jurisdictions. As a result, our effective tax rate is derived from a combination of applicable tax rates in the various places that we operate. In preparing our financial statements, we estimate the amount of tax that will become payable in each jurisdiction. Our effective tax rate may vary as a result of numerous factors, including changes in the mix of our profitability from country to country, the results of examinations and audits of our tax filings, adjustments to the value of our uncertain tax positions, changes in accounting for income taxes and changes in tax laws, including the 2017 Tax Cuts and Jobs Act, or the 2017 Tax Act. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations.

In addition, our inability to secure or sustain acceptable arrangements with tax authorities and future changes in the tax laws, among other things, may result in tax obligations that exceed the amounts accrued in our financial statements.

The 2017 Tax Act has resulted in significant changes to the U.S. corporate income tax system. These changes include a federal statutory rate reduction from 35% to 21%, the elimination or reduction of certain domestic deductions and credits and limitations on the deductibility of interest expense and executive compensation. The 2017 Tax Act also transitions taxation of earnings from a worldwide system to a modified territorial system and includes base erosion prevention measures on non-U.S. earnings, which has the effect of subjecting certain earnings of our foreign subsidiaries to U.S. taxation as global intangible low-taxed income, or GILTI. These changes are effective beginning in 2018.

The 2017 Tax Act also includes the transition toll tax, which is a one-time mandatory deemed repatriation tax on accumulated foreign subsidiaries' previously untaxed foreign earnings. The transition toll tax may be paid over an eight-year period, starting in 2018, and will not accrue interest.

We have made a preliminary estimate of the transition toll tax and the remeasurement of our deferred tax assets and liabilities as of December 31, 2017. The preliminary estimate is subject to change as we finalize our analysis and as interpretations of the provisions of the 2017 Tax Act continue to develop. The final determination of the transition toll tax and the remeasurement of our deferred tax assets and liabilities will be completed as additional information becomes available, but no later than one year after the enactment of the 2017 Tax Act. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the 2017 Tax Act may require further adjustments and changes in our estimates, which could have a material adverse effect on our business, results of operations or financial conditions.

Changes in the competitive environment or supply chain issues may require inventory write-downs.

From time to time, we have recorded significant inventory charges and/or inventory write-offs as a result of substantial declines in customer demand. Market or competitive changes could lead to future charges for excess or obsolete inventory, especially if we are unable to appropriately adjust the supply of material from our vendors.

If goodwill or other intangible assets that we have recorded in connection with our acquisitions of other businesses become impaired, we could have to take significant charges against earnings.

As a result of our acquisitions, we have recorded, and may continue to record, a significant amount of goodwill and other intangible assets. Under current accounting guidelines, we must assess, at least annually and potentially more frequently, whether the value of goodwill and other intangible assets has been impaired. Any reduction or impairment of the value of goodwill or other intangible assets will result in additional charges against earnings, which could materially reduce our reported results of operations in future periods.

Our charter and by-laws and Delaware law may deter takeovers.

Our certificate of incorporation, by-laws and Delaware law contain provisions that could have an anti-takeover effect and discourage, delay or prevent a change in control or an acquisition that many stockholders may find attractive. These provisions may also discourage proxy contests and make it more difficult for our stockholders to take some corporate actions, including the election of directors. These provisions relate to:

- the ability of our Board of Directors to issue preferred stock, and determine its terms, without a stockholder vote;
- the classification of our Board of Directors, which effectively prevents stockholders from electing a majority of the directors at any one annual meeting of stockholders;
- the limitation that directors may be removed only for cause by the affirmative vote of the holders of two-thirds of our shares of capital stock entitled to vote;
- the prohibition against stockholder actions by written consent;
- the inability of stockholders to call a special meeting of stockholders; and
- advance notice requirements for stockholder proposals and director nominations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

On November 26, 2008, our Board of Directors authorized a program to repurchase up to one million shares of our common stock. As of June 30, 2018, 341,000 shares of common stock remain available for repurchase under the program. The repurchase program is funded using our existing cash, cash equivalents, marketable securities, and future cash flows. Under the repurchase program, at management's discretion, we may repurchase shares on the open market from time to time, in privately negotiated transactions or block transactions, or through an accelerated repurchase agreement. The timing of such repurchases depends on availability of shares, price, market conditions, alternative uses of capital, and applicable regulatory requirements. The program may be modified, suspended or terminated at any time without prior notice. The repurchase program has no expiration date. There were no other repurchase programs outstanding during the three months ended June 30, 2018, and no repurchase programs expired during the period.

We did not repurchase any shares of our common stock in open market transactions during the six months ended June 30, 2018.

During the three months ended June 30, 2018, no vested restricted shares were surrendered to us in satisfaction of tax withholding obligations.

ITEM 6. EXHIBITS

Exhibits:

Exhibit No.	Description	Filed with this Form 10-Q	Incorporated by Reference Form	Filing Date	Exhibit No.
3.1	Amended and Restated Certificate of Incorporation, as amended		10-Q	August 6, 2010	3.1
3.2	Amended and Restated Bylaws		10-Q	November 1, 2017	3.2
4.1	Specimen certificate for the common stock		10-K	March 2, 2017	4.1
31.1	Rule 13a-14(a)/15d-14(a) certification of principal executive officer	X			
31.2	Rule 13a-14(a)/15d-14(a) certification of principal financial officer	X			
32.1	Section 1350 certification of principal executive officer and principal financial officer	X			
101	The following financial information from KVH Industries, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Balance Sheets (unaudited), (ii) the Consolidated Statements of Operations (unaudited), (iii) the Consolidated Statements of Comprehensive Income (Loss) (unaudited), (iv) the Consolidated Statements of Cash Flows (unaudited), and (v) the Notes to Consolidated Financial Statements (unaudited).	X			

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, thereunto duly authorized.

Date: August 2, 2018

KVH Industries, Inc.

By: /s/ DONALD W. REILLY
Donald W. Reilly
(Duly Authorized Officer and Chief Financial Officer)

Exhibit Index

Exhibit No.	Description	Filed with this Form 10-Q	Incorporated by Reference Form	Filing Date	Exhibit No.
3.1	Amended and Restated Certificate of Incorporation, as amended		10-Q	August 6, 2010	3.1
3.2	Amended and Restated Bylaws		10-Q	November 1, 2017	3.2
4.1	Specimen certificate for the common stock		10-K	March 2, 2017	4.1
31.1	Rule 13a-14(a)/15d-14(a) certification of principal executive officer	X			
31.2	Rule 13a-14(a)/15d-14(a) certification of principal financial officer	X			
32.1	Section 1350 certification of principal executive officer and principal financial officer	X			
101	The following financial information from KVH Industries, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Balance Sheets (unaudited), (ii) the Consolidated Statements of Operations (unaudited), (iii) the Consolidated Statements of Comprehensive Income (Loss) (unaudited), (iv) the Consolidated Statements of Cash Flows (unaudited), and (v) the Notes to Consolidated Financial Statements (unaudited).	X			