

KVH INDUSTRIES INC \DE\  
Form 10-K  
March 13, 2009  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-K**

(Mark One)

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

**For the fiscal year ended December 31, 2008**

**OR**

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

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission File Number 0-28082**

**KVH Industries, Inc.**

*(Exact Name of Registrant as Specified in its Charter)*

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**Delaware**  
*(State or Other Jurisdiction of Incorporation or Organization)*

**05-0420589**  
*(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)*

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

<u>Title of Each Class</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, \$0.01 par value per share	The NASDAQ Global Market

**Securities registered pursuant to Section 12(g) of the Act: None**

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. **Yes**  **No**

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

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Non-accelerated filer   
(Do not check if a smaller reporting company)

Smaller reporting company

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

As of June 30, 2008, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$116,200,651 based on the closing sale price of \$8.33 per share as reported on the NASDAQ Global Market.

As of March 11, 2009, the registrant had 13,981,363 shares of common stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's Proxy Statement relating to its 2009 Annual Meeting of Stockholders are incorporated herein by reference in Part III.

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**PART I**

**ITEM 1. Business**

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**Cautionary Statement Regarding Forward-Looking Information**

In addition to historical facts, this annual report contains forward-looking statements. Forward-looking statements are merely our current predictions of future events. These statements are inherently uncertain, and actual events could differ materially from our predictions. Important factors that could cause actual events to vary from our predictions include those discussed in this annual report under the headings Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, and Item 1A. Risk Factors. We assume no obligation to update our forward-looking statements to reflect new information or developments. We urge readers to review carefully the risk factors described in this annual report and in the other documents that we file with the Securities and Exchange Commission. You can read these documents at [www.sec.gov](http://www.sec.gov).

**Additional Information Available**

Our principal Internet address is [www.kvh.com](http://www.kvh.com). Our website provides a hyperlink to a third-party website through which our annual, quarterly, and current reports, as well as amendments to those reports, are available free of charge. We believe these reports are made available as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC. We do not provide any information regarding our SEC filings directly to the third-party website, and we do not check its accuracy or completeness.

**Introduction**

We are a leading manufacturer of solutions that provide global high-speed internet, television, and voice services via satellite to mobile users at sea, on land, and in the air. We are also a premier manufacturer of high-performance navigational sensors and integrated inertial systems for defense and commercial guidance and stabilization applications. Our research and development, manufacturing and quality control capabilities have enabled us to meet the demanding standards of our military, consumer and commercial customers for performance and reliability. This combination of factors has allowed us to create products offering important differentiating advantages to our customers. We are based in Middletown, Rhode Island, with facilities in Tinley Park, Illinois, and Kokkedal, Denmark.

We sell our mobile communications products and airtime services, including the TracVision and TracPhone systems and mini-VSAT Broadband airtime, through an extensive international network of distributors and retailers worldwide. We are currently in the process of deploying our mini-VSAT Broadband service on a global basis to support maritime, aeronautical, and land-based mobile applications. In February 2008, we entered the aviation market with a development and production contract for a satellite TV antenna that will be sold on an Original Equipment Manufacturer (OEM) basis to LiveTV, a leading provider of entertainment systems on commercial aircraft. We anticipate the first products developed under this contract will be delivered in early 2009 for use on domestic narrow body commercial airliners. In addition, we are continuing to investigate opportunities to apply our mobile communications expertise to military applications that require affordable, high-bandwidth mobile connections.

Our guidance and stabilization products include precision fiber optic gyro (FOG)-based systems that help stabilize platforms, such as gun turrets, remote weapon stations, and radar units, and provide guidance for munitions, as well as tactical navigation systems for a broad range of military vehicles. We sell our guidance and stabilization products directly to United States (U.S.) and allied governments and government contractors, as well as through an international network of authorized independent sales representatives. Our fiber optic products are also used in such commercial applications as train track geometry measurement systems, industrial robotics, optical stabilization, autonomous vehicles, and undersea remotely operated submersibles.

## **Our Products and Services**

### *Mobile Satellite Communications*

We believe that there is an increasing demand for mobile access to television and the Internet on the move. Our objective is to connect mobile users on sea, land, and air to the satellite TV, communications, and Internet

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services they wish to use. We have developed a comprehensive family of products and services marketed under the TracVision and TracPhone brand names as well as the mini-VSAT Broadband airtime network to address the unique needs of our communications markets.

Our products use sophisticated robotics, stabilization and control software, sensing technologies, transceiver integration, and advanced antenna designs to automatically search for, identify and point directly at the satellite, whether a vehicle or vessel is in motion or stationary. Our antennas use gyros and inclinometers to measure the pitch, roll and yaw of an antenna platform in relation to the earth. Microprocessors and our proprietary stabilization and control software use that data to compute the antenna movement necessary for the antenna's motors to point the antenna properly and maintain contact with the satellite. If an obstruction temporarily blocks the satellite signal, our products continue to track the satellite's location according to the movement of the antenna in order to carry out automatic, rapid reacquisition of the signal when a direct line of sight to the satellite is restored.

Our Certified Support Network (CSN) offers our TracVision and TracPhone customers an international network of skilled technical dealers and support centers in many locations where our customers are likely to travel. We have selected distributors based on their technical expertise, professionalism and commitment to quality and regularly provide them with extensive training in the sale, installation and support of our products.

We offer a broad array of products to address the needs of a variety of customers seeking mobile communications in maritime, land mobile and aeronautical applications.

*Marine.* In the marine market, we offer a range of mobile satellite TV and communications products. Our marine TracVision M-series satellite TV antennas are designed with the full spectrum of vessel sizes in mind, ranging from recreational vessels as small as 20 to 25 feet to large commercial vessels. In October 2008, we introduced the TracVision M1, which at 12.5 inches in diameter and 7.5 pounds, we believe is the smallest and lightest domed satellite TV antenna available for maritime use. It includes a 12V mobile DIRECTV receiver/controller for support of DIRECTV's Ku-band programming. It is the latest addition to an award-winning family of marine TracVision products that vary in size from a lower-profile elliptical parabolic system similar to those offered for use on recreation vehicles (RV) to the 14.5 inch TracVision M3, 18 inch TracVision M5, 24 inch TracVision M7, and 32 inch diameter TracVision M9, each of which employs a high-efficiency circular antenna. These products are compatible with Ku-band HDTV programming as well as high-powered regional satellite TV services around the globe, based on available signal strength and antenna size requirements.

Our Inmarsat-compatible TracPhone products provide in-motion access to global satellite communications. These products are compatible with services offered by Inmarsat, a satellite service provider that supports links for phone, fax and data communications as fast as 432 Kbps, or kilobits per second. The TracPhone F77 uses the Inmarsat Fleet service while the TracPhone FB250 and FB500 antennas use the Inmarsat Fleet Broadband service to offer voice as well as high-speed Internet service, while our TracPhone 252 antenna offers lower-cost voice and low-speed data services via the Inmarsat mini-M service. The TracPhone F77, FB250 and FB500 are manufactured by Thrane & Thrane A/S of Denmark and distributed exclusively by us in North America under the KVH TracPhone brand and distributed in other markets on a non-exclusive basis.

*Broadband Internet.* In addition to the global voice and data access offered by our Inmarsat-compatible TracPhone systems, we developed and manufacture the TracPhone V7 stabilized satellite communications antenna along with the supporting airtime service, mini-VSAT Broadband, which have applications on marine vessels, land vehicles, and airplanes. The system and service utilize spread spectrum technology and ArcLight modem technology, both of which were developed by ViaSat. This spread spectrum approach reduces the broadcast power requirements and the pointing accuracy necessary to track the high-bandwidth Ku-band satellites that carry the service. The resulting efficiencies allow the TracPhone V7 antenna to be 85% smaller by volume and 75% lighter than existing 1 meter VSAT antennas. The high bandwidth offered by the Ku-band satellites also permits faster data rates than those supported by Inmarsat's L-band satellites. TracPhone V7 subscribers may select service packages with Internet data connections offering ship-to-shore data rates as fast as 512 Kbps and shore-to-ship data rates as

fast as 2 Mbps, or megabits, per second. In addition, subscriptions also include two Voice over Internet Protocol (VoIP) telephone lines optimized for use over satellite connections.



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To expedite the rollout of the mini-VSAT Broadband service and the acceptance of the TracPhone V7 in the maritime market, we announced an OEM distribution agreement with Thrane & Thrane A/S of Denmark in February 2009. Under the terms of this agreement, our TracPhone V7 system and broadband service will become Thrane & Thrane's solution for maritime VSAT communications for the leisure and commercial markets. Thrane & Thrane will private label the TracPhone V7 under its SAILOR brand and resell our mini-VSAT broadband service under the KVH brand. We are also actively engaged in sales efforts for the TracPhone V7 and mini-VSAT Broadband service to government agencies for maritime, military, and emergency responder use.

Service is currently offered in the north Pacific Ocean, the Americas, Caribbean, North Atlantic, Europe, and the Persian Gulf. This represents a unified Ku-band broadband service across roughly two-thirds of the world's major shipping and aeronautical routes, enabling us to offer commercial, leisure and government customers an integrated hardware and service solution for mobile communications and seamless roaming. It is our long-term plan to invest in and deploy the mini-VSAT Broadband network on a global basis in cooperation with ViaSat under the terms of a 10-year agreement announced in July 2008. As part of the coverage expansion, we have agreed to acquire satellite capacity from Ku-band satellite operators as well as purchase a minimum of three new regional satellite hubs from ViaSat. These hubs will use ViaSat's ArcLight spread spectrum mobile broadband technology and be operated by ViaSat. As the rollout continues, either we or ViaSat will work to establish additional regional hubs and satellite capacity. Over the course of the 10-year agreement, we and ViaSat also expect to implement future enhancements to the mini-VSAT Broadband spread spectrum maritime services and related products. Under the terms of our revenue sharing arrangement with ViaSat, this expansion positions us to earn revenue not only from the maritime and land-based use of the mini-VSAT Broadband service but also from future aeronautical applications that roam throughout our network.

The TracPhone V7 represents a different business model for KVH. Unlike our Inmarsat-compatible products, where we purchase airtime from a distributor and resell it to our customers, we are the source of the mini-VSAT Broadband service. As a result, we generate revenue from hardware sales as well as recurring monthly revenue derived from subscription packages. We offer both fixed-rate subscription packages ranging from \$995 to \$6,000 per month and per-megabyte service plans that we believe can be significantly more affordable than competing legacy VSAT and Inmarsat offerings in many instances.

*Land.* We design, manufacture, and sell a range of TracVision satellite TV antenna systems for use on a broad array of vehicles, including recreational vehicles, trucks, conversion vans, and automobiles.

In the RV/truck market, we offer a line-up of our TracVision satellite TV products, including products intended for both stationary and in-motion use. Our RV product line, known as the TracVision SlimLine series, offers automatic satellite switching and integrated compatibility with the international DVB (Digital Video Broadcast) standard. The 12.5-inch high in-motion TracVision R5SL and stationary automatic TracVision R4SL, which began shipping in March 2007, use an elliptical parabolic antenna to reduce the antenna's profile to address height restrictions on the road. The in-motion 12.5-inch high TracVision R6, which began shipping in April 2006, is the flagship product of our RV-specific offerings. This system incorporates a number of innovations, including a high-efficiency antenna, integrated global positioning system (GPS) for faster satellite acquisition, and our patented DewShield electronic dew elimination technology.

The TracVision A7 uses hybrid phased-array antenna technology to provide in-motion reception of satellite TV programming in the continental United States using the DIRECTV service. Our TracVision A7 product includes a mobile satellite television antenna and an integrated 12V mobile DIRECTV receiver/controller designed specifically for the mobile environment by KVH and DIRECTV. The TracVision A7 stands approximately five inches high and mounts either to a vehicle's roof rack or directly to the vehicle's roof, making it practical for use aboard minivans, SUVs and other passenger vehicles. The TracVision A7 is also popular for tall motor coaches and buses. Automotive customers subscribe to DIRECTV's TOTAL CHOICE MOBILE satellite TV programming package, which is specifically promoted for automotive applications. Local channels and network programming are also available as an option for TracVision A7 users as a result of the system's integrated GPS and mobile receiver. At this time, we are the only company authorized by DIRECTV to sell, promote, and activate mobile users for the TOTAL CHOICE MOBILE programming package.



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In addition to sales through aftermarket dealers, we sell our TracVision products to original equipment manufacturers for factory installation on new vehicles. Each of these systems works with a range of service providers, including DIRECTV, DISH Network, and other regional service providers. Although initially designed for automotive applications, the TracVision A7 is now also sold within the RV marketplace to provide access to DIRECTV programming in in-motion applications and for vehicles with height restrictions that could prevent them from safely using a satellite TV antenna based on parabolic technology, and/or where the accumulation of moisture on the outer surface of the antenna's radome is not a concern.

*Aeronautical Applications.* In February 2008, we announced that we had been awarded a \$20.1 million contract by LiveTV, a leading in-flight entertainment supplier. Under the terms of the multi-year contract, we will design, develop, and manufacture new DIRECTV-compatible satellite TV antennas to be used on narrowbody commercial aircraft, such as Boeing's 737 and the Airbus A320, operating in the United States.

This next generation of in-flight satellite antennas is based on our flat panel array technology. We expect to begin shipments of these antennas in the second quarter of 2009. They are intended to help fill the growing demand from airlines and passengers for live television in the air. While JetBlue is the first and best known of the airlines to add DIRECTV service, Continental Airlines has announced that it has signed a contract with LiveTV to start fielding satellite television in 2009.

## ***Guidance and Stabilization Products***

We offer a portfolio of digital compass and fiber optic gyro-based systems that address the rigorous requirements of military and commercial customers. Our systems provide an unjammable source of reliable, easy-to-use and continuously available navigation and pointing data. Our guidance and stabilization products include our inertial measurement unit for precision guidance of torpedoes and unmanned aerial vehicles, fiber optic gyros for tactical navigation and stabilization, and digital compasses for tactical navigation.

*Guidance and Stabilization.* Our fiber optic gyro products use an all-fiber design that has no moving parts, resulting in an affordable combination of precision, accuracy and durability. Our fiber optic gyro products support a broad range of military, commercial, and industrial applications, including stabilization of remote weapons stations, antennas, radar, optical devices or turrets; image stabilization and synchronization for shoulder- or tripod-mounted weapon simulators; precision tactical navigation systems for military vehicles; and guidance for weapons and unmanned autonomous vehicles.

Our TG-6000 Inertial Measurement Unit is a guidance system that provides precise measurement of motion and acceleration in three dimensions. It uses a three-axis configuration of our high-performance DSP-based (digital signal processing) fiber optic gyros integrated with three accelerometers. We believe that this configuration provides outstanding performance, high reliability, low maintenance and easy system integration. The TG-6000 IMU is in full production as a component in the U.S. Navy's MK54 lightweight torpedo and is suitable for use in other applications that involve flight control, orientation, instrumentation and navigation, such as unmanned aerial vehicles.

In May 2008, we introduced the CNS-5000 continuous navigation system, a self-contained navigation system that combines our fiber optic gyro-based inertial measurement technology from KVH with GPS technology from NovAtel. This navigation solution provides precise position and orientation of a host platform on a continuous basis, even during periods where GPS signals are blocked by natural or man-made obstructions or conditions. The CNS-5000 is designed for demanding commercial applications, such as dynamic surveying, precision agriculture, container terminal management, and autonomous vehicle navigation, where the ability to determine the precise position and orientation of a piece of equipment or a mobile platform is critical. The CNS-5000 is also designed to meet commercial-off-the-shelf (COTS) requirements. This design reduces the operational complexities for customers whose products cross international boundaries.

Our open-loop DSP-3000 series and DSP-4000 fiber optic gyros provide precision measurement of the rate and angle of a platform's turning motion for significantly less cost than competing closed-loop gyros. These

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DSP-based products deliver performance superior to analog signal processing devices, which experience greater temperature-sensitive drift and rotation errors. Applications for these products include inertial measurement units, integrated navigation systems, attitude/heading/reference systems, and stabilization of antenna, radar and optical equipment.

The DSP-3000 series is slightly larger than a deck of cards and offers a variety of interface options to support a range of applications. High-performance 2-axis and 3-axis configurations can be realized by integrating multiple DSP-3000 units. Currently, the DSP-3000 is used in an array of pointing and stabilization applications, including the U.S. Army's Common Remotely Operated Weapon Station (CROWS) to provide the image and gun stabilization necessary to ensure that the weapon remains aimed at its target. More than 20 companies are apparently developing stabilized remote weapons stations that we believe will require similar fiber optic gyro stabilization capabilities. The larger, militarized DSP-4000 uses the core DSP-3000 technology in 2-axis configurations and is designed for use in high-shock and highly dynamic environments, such as gun turret stabilization. Our fiber optic products are also used in numerous commercial applications, such as train location control and track geometry measurement systems, industrial robotics, optical stabilization, autonomous vehicles, and undersea remotely operated submersibles.

*Tactical Navigation.* Our TACNAV tactical navigation product line employ digital compass sensors and KVH fiber optic gyros to offer vehicle-based navigation and pointing systems with a range of capabilities, including GPS backup and enhancement, vehicle position, hull azimuth and navigation displays. Because our digital compass products measure the earth's magnetic field rather than detect satellite signals from the GPS, they are not susceptible to GPS jamming devices.

TACNAV systems vary in size and complexity to suit a wide range of vehicles. The TACNAV M100 GMENS, which is sold outside the United States under the name TACNAV Light, is a low-cost, digital compass-based battlefield navigation system specifically designed for non-turreted vehicles, such as high mobility multi-wheeled vehicles (HMMWVs) and trucks. Turreted vehicles, including reconnaissance vehicles, armored personnel carriers and light armored vehicles, are supported by the TACNAV TLS, a digital compass-based tactical navigation and targeting system that offers a fiber optic gyro upgrade for enhanced accuracy. We also manufacture the TACNAV II Fiber Gyro Navigation system, which offers a compact design, continuous output of heading and pointing data, and a flexible architecture that allows it to function as either a stand-alone navigation module or as the central component of an expanded, multifunctional navigation system.

Our navigation systems function as standalone tools and also aggregate, integrate and communicate critical information from a variety of on-board systems. TACNAV can receive data from systems such as the vehicle's odometer, military and commercial GPS devices, laser rangefinders, turret angle indicators and laser warning systems. TACNAV can also output this data to an on-board computer for retransmission through the vehicle's communications systems to a digital battlefield management application.

Our TACNAV digital compass products have been sold for use aboard U.S. Army, Marine Corps, and Navy vehicles as well as to many allied countries, including Australia, the United Kingdom, Canada, Germany, Italy, New Zealand, Saudi Arabia, Spain, Sweden, Taiwan, Malaysia and Switzerland. We believe that we are among the leading manufacturers of such systems. Our standard TACNAV products can be customized to our customers' specifications. At customer request, we offer training and other services on a time-and-materials basis.

## **Sales, Marketing and Support**

Our sales, marketing and support efforts target markets that are substantial and require dedicated dealers and distributors to reach end customers. These channels vary from time to time, but currently include targeted efforts to reach the RV and high-end automotive markets, the leisure and commercial maritime markets, and the industrial and government markets. We believe our brands are well known and well respected by

consumers within their respective niches. These brands include:

TracVision satellite television systems for vessels and vehicles

TracPhone two-way satellite communications systems

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mini-VSAT Broadband broadband mobile satellite communications network

Azimuth digital compass for powerboats

Sailcomp digital compass for sailboats

DataScope handheld digital compass/rangefinder

TACNAV tactical navigation systems for military vehicles

Our fiber optic gyros and digital compass sensors use an alphanumeric model numbering sequence such as C-100, DSP-3000, DSP-4000, CNS-5000, and TG-6000 IMU.

We sell our mobile satellite communications products through an international network of independent retailers, chain stores and distributors, as well as to manufacturers of vessels and vehicles. We currently market and sell the TracVision A7 in the continental United States through retailers specializing in automotive electronics.

Our European sales subsidiary located in Denmark, KVH Europe A/S (KVH Europe), coordinates our sales, marketing and support efforts for our mobile satellite communications products in Europe, the Middle East, Africa, and Asia.

We sell our guidance and stabilization products directly to U.S. and allied governments and government contractors, as well as through an international network of authorized independent sales representatives. This same network also sells our fiber optic products to commercial/industrial entities.

## **Backlog**

Our backlog was approximately \$12.3 million on December 31, 2008, \$9.1 million on December 31, 2007, and \$5.6 million on December 31, 2006.

Backlog consists of orders evidenced by written agreements and specified delivery dates for customers who are acceptable credit risks. Military orders included in backlog are generally subject to cancellation for the convenience of the customer. When orders are cancelled, we generally recover actual costs incurred through the date of cancellation and the costs resulting from termination. 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 requires customers to order well in advance of the required delivery date, resulting in backlog.

Backlog is not a meaningful indicator for predicting revenue in future periods. Commercial resellers for our mobile satellite communications products and legacy 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.

### **Intellectual Property**

Our ability to compete effectively depends to a significant extent on our ability to protect our proprietary information. We rely primarily on patents and trade secret laws, confidentiality procedures and licensing arrangements to protect our intellectual property rights. We own more than 70 U.S. and foreign patents and have additional patent applications that are currently pending. In January 2006, we entered into a licensing agreement with Litton Systems, Inc., a wholly owned subsidiary of Northrop Grumman Systems Corporation, with respect to certain of its fiber optic gyroscope-related patents. We also register our trademarks in the United States and other key markets where we do business. Our patents and trademarks will expire at various dates between June 2009 and July 2028. We enter into confidentiality agreements with our consultants, key employees and sales representatives, and maintain controls over access to and distribution of our technology, software and other proprietary information. 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.



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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 technologies infringe their patents or other intellectual property rights, and we may face similar claims in the future. Any claim of infringement could cause us to incur substantial costs defending against the claim, even if the claim is invalid, and could distract the attention of our management. If any of our products is 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 seek to 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.

## **Manufacturing**

Manufacturing operations for our mobile satellite communications and navigation products consist of light manufacture, final assembly and testing. Manufacturing operations for our fiber optic gyro products are more complex. We produce specialized optical fiber, fiber optic components and sensing coils and combine them with components purchased from outside vendors for assembly into finished goods. We own optical fiber drawing towers where we produce the specialized optical fiber that we use in all of our fiber optic products. We manufacture our mobile satellite communications products at our headquarters in Middletown, Rhode Island, and utilize a nearby leased facility for warehousing and distribution purposes. We manufacture our navigation and fiber optic gyro products in a leased facility located in Tinley Park, Illinois.

We contract with third parties for fabrication and assembly of printed circuit boards, injection-molded plastic parts, machined metal components, connectors and housings. We believe there are a number of acceptable vendors for the components we purchase. We regularly evaluate both domestic and foreign suppliers for quality, dependability and cost effectiveness. In some instances we utilize sole-source suppliers to develop strategic relationships to enhance the quality of materials and save costs. Our manufacturing processes are controlled by an ISO 9001:2000-certified quality standards program.

## **Competition**

We encounter significant competition in all of our markets, and we expect this competition to intensify in the future. Many of our primary competitors are well-established companies and some have substantially greater financial, managerial, technical, marketing, operational and other resources than we do.

In the market for mobile satellite communications products, we compete with a variety of companies. We believe the principal competitive factors in this market are product size, design, performance, reliability, and price.

In the marine market for satellite TV equipment, we compete primarily with NaviSystem Marine Electronics Systems Srl, King Controls, Cobham Sea Tel, Inc., Intellian, and Raymarine. In the marine market for telephone, fax, data and Internet communications equipment and services, we compete with Thrane & Thrane A/S, Furuno Electric Co., Ltd., Globalstar LP, Iridium Satellite LLC, and Japan Radio Company. We also face competition from providers of marine satellite data services and maritime VSAT solutions, including SeaMobile, CapRock,

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Schlumberger, Ship Equip, Vizada, Stratos, and Cobham Sea Tel.

Foreign competition for our mobile satellite communications products has continued to intensify, most notably from companies based in South Korea that seek to compete primarily on price. We anticipate that this trend will continue.

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In the recreational vehicle markets, we compete primarily with King Controls, TracStar Systems, Inc., MotoSAT, and Winegard Company. Our TracVision A7 and our original TracVision A5 were the first commercially available, low-profile mobile satellite TV antenna for use on minivans, SUVs and other passenger vehicles. At this time, we are not aware of any competing products in full production and available for widespread sale to consumers. A number of other companies have from time to time announced that they intend to compete in this market, including: RaySat, Winegard, Sirius Satellite Radio, and certain other suppliers of automotive parts.

In the guidance and stabilization markets, we compete primarily with Honeywell International Inc., Kearfott Guidance & Navigation Corporation, Leica Microsystems AG, Northrop Grumman Corporation, Smiths Group plc, Tamam, and Fizoptica. We believe the principal competitive factors in these markets are performance, size, reliability, durability and price.

## **Research and Development**

Focused investments in research and development are critical to our future growth and competitive position in the marketplace. Our research and development efforts are directly related to timely development of new and enhanced products that are central to our core business strategy. The industries in which we compete are subject to rapid technological developments, evolving industry standards, changes in customer requirements, and new product introductions and enhancements. As a result, our success depends in part upon our ability, on a cost-effective and timely basis, to continue to enhance our existing products and to develop and introduce new products that improve performance and meet customers operational and cost requirements. Our current research and development efforts include projects to achieve additional cost reductions in our products and the development of new products for our existing marine and land mobile communications markets, and navigation, guidance and stabilization application markets.

Our research and development activities consist of projects funded by us, projects funded with the assistance of Small Business Innovative Research (SBIR) grants, and customer-funded contract research. SBIR projects are generally directed towards the discovery of specific information requested by the government research sponsor. Many of these grants have enhanced our technologies, resulting in new or improved product offerings. Our customer-funded research efforts are made up of contracts with defense and OEM customers, whose performance specifications are unique to their product applications. Defense and OEM research often results in new product offerings. We strive to be the first company to bring a new product to market, and we use our own funds to accelerate new product development efforts.

## **Government Regulation**

Our manufacturing operations are subject to various laws governing the protection of the environment and our employees. These laws and regulations are subject to change, and any such change may require us to improve our technologies, incur expenditures, or both, in order to comply with such laws and regulations.

We are subject to compliance with the U.S. Export Administration Regulations. Some of our products have military or strategic applications, and are on the Munitions List of the U.S. International Traffic in Arms Regulations. These products require an individual validated license to be exported to certain jurisdictions. The length of time involved in the licensing process varies and can result in delays of the shipping of the products. Sales of our products to either the U.S. government or its prime contractors are subject to the U.S. Federal Acquisition Regulations.

We are also subject to the laws and regulations of the various foreign jurisdictions in which we offer and sell our products, including those of the European Union.

### **Employees**

On December 31, 2008, we employed 346 full-time employees. We also employ temporary or contract personnel, when necessary, to provide short-term and/or specialized support for production and other functional projects.

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We believe our future success will depend upon the continued service of our key technical and senior management personnel and upon our continued ability to attract and retain highly qualified technical and managerial personnel. None of our employees is represented by a labor union. We have never experienced a work stoppage and consider our relationship with our employees to be good.

**ITEM 1A. Risk Factors**

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*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 revenues and results of operations may be adversely impacted by worldwide economic turmoil and credit tightening.**

Worldwide economic conditions have recently experienced a significant downturn, including slower economic activity, tightened credit markets, inflation and deflation concerns, decreased consumer confidence, reduced corporate profits, reduced or canceled capital spending, adverse business conditions and liquidity concerns. These conditions make it difficult for businesses, governments and consumers to accurately forecast and plan future activities. Governments are experiencing significant declines in tax receipts, which may cause them to curtail spending significantly or reallocate funds away from defense programs. There can be no assurances that government responses to the disruptions in the economy will remedy these problems. As a result of these and other factors, customers could slow or suspend spending on our products and services. We may also be forced to increase our allowance for doubtful accounts, which would have a negative impact on our cash position, liquidity and financial condition. We cannot predict the timing, duration or ultimate impact of this downturn. We expect our business to be adversely impacted by this downturn.

**We have a history of variable operating results and may not be profitable in the future.**

Although we generated net income during 2006, 2007, and 2008 and in eighteen of the last twenty-four fiscal quarters, at times our profitability has fluctuated significantly on both a sequential and comparable quarter-to-quarter basis during 2007 and 2008. As of December 31, 2008, we had an accumulated deficit of \$5.3 million.

**Our inventory levels increased 66% from the end of 2007 to the end of 2008 and could require an inventory write-down if our inventory reduction and rebalancing efforts are ineffective.**

Our inventory level at December 31, 2008 increased 66% compared to the prior year. The increase was largely the result of two factors. First, commencing during the second quarter of 2008 we began to build up inventory levels of fiber optic gyro materials in anticipation of large orders for remote weapon stations and MK54 torpedo programs. Second, the dramatic weakening of the RV market commencing in the first half of the year, particularly during the second quarter, and the crisis of consumer confidence in the general economy during the second half of the year, caused precipitous declines in demand for our RV products and substantial reductions in demand for our marine consumer products. While shipments of fiber optic gyros for remote weapon stations are now underway, we anticipate that it will take several quarters to reduce other product inventories to more normal levels if the current weak level of demand continues. We currently anticipate to receive a large order for the MK54 torpedo program in June 2009, but there can be no assurance that the order will not be delayed or cancelled. As of December 31, 2008 we

had approximately \$0.7 million of inventory, primarily made up of raw materials for military products whose utilization will be dependent upon the receipt of additional sales orders in the future. If we do not receive such sales orders, and we are unable to redeploy the components of such inventory for other product sales, we may be required to record additional write-downs to inventory which would

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negatively impact both gross margins and net income in the period when such write-downs are recorded. If our inventory reduction and rebalancing efforts are unsuccessful or take a very extended period of time, we may have to consider sizeable inventory reserves or write-downs to address potential excess and obsolete inventory, or our gross margins may fall below historical levels, which would adversely affect our financial results.

### **Our net sales and operating results could decline due to the current recession or associated declines in consumer spending.**

Our operating performance depends significantly on general economic conditions, which have worsened dramatically in recent periods. Net sales of our mobile communications products are largely generated by discretionary consumer spending, and demand for these products is likely to demonstrate slower growth than we anticipate or decline as a result of worsening regional and global economic conditions. Consumer spending tends to decline during recessionary periods and may decline at other times. For example, sales of our mobile satellite communications products declined approximately 17% from 2007 to 2008 in North America. Consumers may choose not to purchase our mobile communications products due to a perception that they are luxury items. As global and regional economic conditions change, including the general level of interest rates, fluctuating oil prices and demand for durable consumer products, demand for our products could be materially and adversely affected.

### **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 significant downturn in worldwide economic conditions and credit tightening could present challenges to our suppliers, which could result in disruptions to our business, increase our costs, delay shipment of our products 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 to customers in a timely and cost-effective manner, cause us to breach our contractual commitments or result in the loss of customers.

### **Shifts in our product sales mix toward our mobile communications products may continue to reduce our overall gross margins.**

Our mobile communications products historically have had lower product gross margins than our guidance and stabilization products. During 2006 and 2007, and the first three quarters of 2008, sales of our guidance and stabilization products either declined or grew at a substantially lower rate than our overall sales growth. During the fourth quarter of 2008, we experienced a significant increase in sales of our guidance and stabilization products, primarily due to an increase in our FOG and legacy navigation product sales. A continuing shift in our product sales mix toward mobile communications products would likely cause lower gross margins in the future.

### **Competition may limit our ability to sell our mobile communications products and guidance and stabilization products.**

The mobile communications markets and defense navigation, guidance and stabilization 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. For example, improvements in the performance of lower cost gyros could potentially jeopardize sales of our fiber optic gyros.

In the guidance and stabilization markets, we compete primarily with Honeywell International Inc., Kearfott Guidance & Navigation Corporation, Northrop Grumman Corporation, Smiths Group plc, Tamam, and Fizoptica.



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In the market for marine satellite TV equipment, we compete with NaviSystem Marine Electronic Systems Srl, King Controls, Cobham Sea Tel, Inc., Raymarine, and Intellian. In the market for maritime broadband service we compete with SeaMobile, CapRock, Schlumberger, Thrane & Thrane A/S, Ship Equip, Vizada, Stratos, and Cobham Sea Tel. In the marine market for satellite communications equipment, we compete with Cobham Sea Tel, Inc., Furuno Electric Co., Ltd., Globalstar LP, Iridium Satellite LLC, EMS and Japan Radio Company.

In the market for land mobile satellite TV equipment, we compete with King Controls, MotoSAT, TracStar Systems, Inc., Winegard Company, and Sirius Satellite Radio.

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 could have substantially greater financial, managerial, technical, marketing, personnel and other resources than we do;

product improvements, new product developments or price reductions by competitors may weaken customer acceptance of, and reduce demand for, our products;

new technology or market trends may disrupt or displace a need for our products; 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 24-inch diameter TracPhone V7 antenna and integrated mini-VSAT Broadband service.**

Our TracPhone V7 system offers customers a range of benefits due to its integrated design, hardware costs that are lower than existing maritime VSAT systems, and spread spectrum technology. We anticipate competition from companies like Cobham Sea Tel and MTN, both of which have recently announced their intent to offer similar systems and services. We also compete against companies like Sea Tel that offer established maritime VSAT service using antennas 1 meter in diameter or larger. In addition, other companies could replicate the distinguishing features of our TracPhone V7, which could potentially reduce the appeal of our solution and adversely affect sales. Moreover, consumers may choose other services such as Inmarsat Fleet or FleetBroadband for their global service coverage and potentially lower hardware costs despite higher service costs and slower data rates.

**Our ability to compete in the maritime airtime services market may be impaired if we are unable to expand the coverage of our mini-VSAT Broadband service to new regions.**

The TracPhone V7 and mini-VSAT Broadband service offer a range of benefits to mariners, especially in commercial markets, due to the smaller size antenna and faster, more affordable airtime. However, to support these customers, we need to expand the coverage areas of the mini-VSAT Broadband service, which is currently offered in the north Pacific Ocean, the Americas, Caribbean, North Atlantic, Europe, and the Persian Gulf. If we are unable to reach agreement with third-party satellite providers to support the mini-VSAT Broadband service and its spread

spectrum technology, our ability to support vessels and aeronautical applications globally will be at risk and reduce the attractiveness of the product and service to these customers.

**Customers for our fiber optic gyro products and TACNAV include the U.S. military and foreign governments, whose purchasing and delivery schedules and priorities are often unpredictable.**

We sell our fiber optic gyro systems as well as vehicle navigation products to U.S. and foreign military and government customers, either directly or as a subcontractor to other manufacturers. These customers often use a

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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:

changes in modernization plans for military equipment;

changes in tactical navigation requirements;

global conflicts impacting troop deployment;

priorities for current battlefield operations;

allocation of funding for military programs;

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 can cause substantial fluctuations in sales of fiber optic gyros and TACNAV products from period to period. For example, sales of our TACNAV products declined from 2006 to 2007, but increased from 2007 to 2008. The Obama administration and the new Congress may change defense spending priorities, either in conjunction with the decision to commence troop withdrawals from Iraq or for other reasons. Moreover, government customers and their contractors can generally cancel orders for our products for convenience or decline to exercise previously disclosed contract options. Even under firm orders with government customers, funding must usually be appropriated in the budget process in order for the government to complete the contract. The cancellation of or failure to fund orders for our products could substantially reduce our net sales and results of operations.

**Sales of our fiber optic gyro 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 one million dollars. As a result, the delay or cancellation of a single order could materially reduce our net sales and results of operations. We continue to experience unanticipated delays in defense orders, which make our revenues and operating results less

predictable. Because our guidance and stabilization products typically have relatively higher product gross margins than our mobile communications products, the loss of an order for guidance and stabilization products could have a disproportionately adverse effect on our results of operations.

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

We derive a significant portion of our guidance and stabilization revenues from a small number of customers, including the U.S. Government. The loss of business from any of these customers 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.

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**The market for mobile TV products for minivans, SUVs and other passenger vehicles has not developed as we originally expected it would, and our business in this market may never be a growth driver.**

The market for live TV in automobiles is still in a relatively early stage of development, and there are many alternative technologies that provide entertainment and communication capabilities to mobile users in automobiles. Historically, sales of the automotive TracVision system have generally been below our expectations.

We believe the success of our low profile TracVision systems will depend upon consumers' assessment of whether these products meet their expectations for performance, quality, price and design. For example, the TracVision A7 is designed for use on open roads in the continental United States where there is a clear view of the transmitting satellite in the southern sky, and it may not perform satisfactorily under other conditions. Among the factors that could affect the success of the low profile TracVision systems are:

the performance, price and availability of competing or alternative products and technology relative to the automotive TracVision;

the extent to which customers prefer live TV over recorded media;

the extent to which customers perceive mobile satellite TV services as a luxury or a preferred convenience;

the extent to which TracVision gains the acceptance of the automotive OEMs;

customers' willingness to pay monthly fees for satellite television service in automobiles; and

the adoption of laws or regulations that restrict or ban television or other video technology in vehicles.

**Our mobile satellite products currently depend on satellite services provided by third parties, and any disruption in those services could adversely affect sales.**

Our satellite products include only the equipment necessary to receive satellite services; we do not broadcast satellite television programming or own the satellites to directly provide two-way satellite communications. We currently offer satellite television products compatible with the DIRECTV and DISH Network services in the United States, the ExpressVu service in Canada, the Sky Mexico service and various other regional services in other parts of the world.

We rely on Inmarsat for satellite communications services for our mini-M, Fleet and FleetBroadband compatible TracPhone products. SES AMERICOM, Eutelsat, and SAT-GE currently provide the satellite network to support the mini-VSAT Broadband service and our TracPhone V7.

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 technology may not be compatible with that of any alternative service provider that may be available. 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 spread spectrum communications technology developed by ViaSat and fielded by third-party satellite providers to permit two-way broadband Internet via our 24-inch diameter TracPhone V7, and any disruption in the availability of this technology could adversely affect sales.**

Our mini-VSAT Broadband service relies on spread spectrum technology developed with ViaSat, Inc. for use with satellite networks controlled by SES AMERICOM, Eutelsat, and SAT-GE. Our TracPhone V7 two-way broadband satellite terminal combines our stabilized antenna technology with ViaSat's ArcLight spread spectrum

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mobile broadband technology, along with a new maritime version of ViaSat's ArcLight spread spectrum modem. The ArcLight technology is also integrated within the satellite hubs that support this service. Sales of the TracPhone V7 and our mini-VSAT Broadband service could be disrupted if we fail to receive approval from regulatory authorities to provide our spread spectrum service in various countries our customers operate or if there were issues with the availability of the ArcLight maritime modems.

We no longer have the right to continue offering mini-VSAT Broadband service using SES AMERICOM's satellite network on an exclusive basis in certain geographic markets because annual revenue targets were not reached during the first year; however, the contract is not terminable by either party because revenues in the first year of service did meet certain minimum goals.

Under our agreement with SES AMERICOM, we cannot offer a mini-VSAT Broadband service utilizing technology that competes with SES AMERICOM's technology in areas where they offer service. If another party has or introduces technology superior to that of SES AMERICOM, our sales might suffer, and we would not be able to offer a service using that alternative technology.

**Investment in the global deployment of the mini-VSAT Broadband service will require significant capital investment and initial operating expenses that may not be recouped if we fail to meet the subscriber levels necessary to cover those costs on an ongoing basis.**

It is our intent to invest in and deploy the mini-VSAT Broadband network on a global basis in cooperation with ViaSat under the terms of a 10-year agreement announced in July 2008. As part of the coverage expansion, we have agreed to acquire satellite capacity from Ku-band satellite operators as well as purchase at least three new regional satellite hubs from ViaSat. During the deployment period, we expect to see a substantial increase in costs associated with the build out of the mini-VSAT Broadband global infrastructure and support capability. In the short term KVH and ViaSat will be covering the operational cost per transponder access until sufficient subscribers join the network and allow us to reach a breakeven point on our transponder cost, which may not occur. We currently estimate that, on average, it will require at least nine months to reach the breakeven point once the service is turned on for a new coverage region. However, should an insufficient number of subscribers activate within a region, our operations may continue below the breakeven level for a longer duration and adversely affect our operating results and cash levels.

**High fuel prices, high interest rates, tight credit availability and environmental concerns may adversely affect sales of our mobile communications products.**

Factors such as historically high fuel prices, interest rates, tight credit and environmental protection laws could continue to materially and adversely affect sales or use of larger vehicles and vessels for which our mobile satellite communications products are designed. Many customers finance their purchases of these vehicles and vessels, and higher interest rates and/or tightened credit availability would likely reduce demand for both these vehicles and vessels and our mobile communications products. Moreover, in the current credit markets financing for these purchases may be unavailable or more difficult to obtain. The increased cost of operating these vehicles and vessels is adversely affecting and may continue to adversely affect demand for our mobile satellite communications products.

**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 in the U.S., in order for us to compete with lower priced competitive products while also improving our profitability, we have found it desirable to source raw materials and manufactured components from foreign countries such as China and Mexico. Our increased 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 affect on our operations and financial performance.



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**We have single dedicated manufacturing facilities for each of our mobile communications and guidance and stabilization product categories, and any significant disruption to a facility could impair our ability to deliver our products.**

We currently manufacture all of our mobile communications products at our headquarters in Middletown, Rhode Island, and the majority of our guidance and stabilization 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, we have experienced changes in the chemicals used to coat our optical fiber, which changed its characteristics and thereby necessitated design modifications. 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.

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

We market and sell our mobile communications products through an international network of independent retailers, chain stores and distributors, as well as to manufacturers of marine vessels and recreational vehicles. If we are unable to maintain or improve our distribution relationships, it could significantly limit our sales. In addition, our distribution partners may sell products of other companies, including competing products, and are not required to purchase minimum quantities of our products.

**If we are unable to improve our existing mobile communications and guidance and stabilization products and develop new, innovative products, our sales and market share may decline.**

The markets for mobile communications products and guidance and stabilization products are each characterized by rapid technological change, frequent new product innovations, changes in customer requirements and expectations and evolving industry standards. If we fail to make innovations in our existing products and reduce the costs of our products, our market share may decline. Products using new technologies, or emerging industry standards, could render our products obsolete. If our competitors successfully introduce new or enhanced products that eliminate technological advantages our products may have in a market or otherwise outperform our products, or are perceived by consumers as doing so, we may be unable to compete successfully in the markets affected by these changes.

**If we cannot effectively manage our growth, our business may suffer.**

We have previously expanded our operations to pursue existing and potential market opportunities. This growth placed a strain on our personnel, management, financial and other resources. If we grow more rapidly

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than we anticipate and fail to manage that growth properly, we may incur unnecessary expenses, and the efficiency of our operations may decline. To manage any growth effectively, we must, among other things:

upgrade, expand or re-size our manufacturing facilities and capacity in a timely manner;

successfully attract, train, motivate and manage a larger number of employees for manufacturing, sales and customer support activities;

control higher inventory and working capital requirements; and

improve the efficiencies within our operating, administrative, financial and accounting systems, and our procedures and controls.

### **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 and key employees.**

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 and members of senior management to work effectively as a team. None of our senior management or other key personnel is bound by an employment agreement. The loss of one or more of our executive officers or senior management members could impair our ability to manage our business effectively.

### **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 and Canada have accounted for a significant portion of our net sales. We have only one foreign sales office, which is located in Denmark, and we otherwise support our international sales from our operations 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 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:

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technical challenges we may face in adapting our mobile communication 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;

restrictions on the sale of certain guidance and stabilization products to foreign military and government customers;

increased costs of providing customer support in multiple languages;

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;

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potentially longer accounts receivable payment cycles and difficulties in collecting accounts receivable;

losses arising from foreign currency exchange rate fluctuations; and

economic and political instability in some international markets.

### **Exports of certain guidance and stabilization products are subject to 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. Our products that have military or strategic applications 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 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.

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

Our ability to compete depends significantly upon our patents, our source code and our 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 be challenged, invalidated or circumvented, and the rights we have under our patents could provide no competitive advantages. Existing trade secrets, copyright and trademark laws offer only limited protection. 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. Any claim of

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infringement could cause us to incur substantial costs defending against 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.

### **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 communications products and guidance and stabilization products;

the timing and size of individual orders from military customers;

the mix of products we sell;

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;

expense incurred in pursuing acquisitions, such as during the third quarter of 2006;

market and competitive pricing pressures;

general economic climate; and

seasonality of pleasure boat and recreational vehicle usage.

A large portion of our expenses, including expenses for facilities, equipment, and personnel, are relatively fixed. Accordingly, if our net sales decline or do not grow as much 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.

**Our tax planning strategy involves assumptions that may cause our annual provision for income tax expense or benefit to fluctuate materially. Moreover, our tax planning strategy is based upon our ability to sell our manufacturing and corporate headquarters facility located in Middletown, Rhode Island, as may be necessary.**

We utilize a tax planning strategy as provided for under accounting principles generally accepted in the United States as a means of supporting the realizability of certain of our deferred tax assets. The strategy involves our ability to sell our Middletown, Rhode Island headquarters facility in order to generate taxable income for the sole purpose of utilizing our U.S. net operating tax loss carry-forwards before they expire. The determination of taxable income, and therefore supportable deferred tax asset value, is based upon the difference between the property's estimated fair market value and our tax basis. Accordingly, the estimated net realizable value of our deferred tax asset is highly correlated to property values in and around the Middletown, Rhode



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Island area and therefore subject to changes in property value and or assumptions used in the valuation process. This fair market value subjectivity may cause us to record significant increases or decreases to our deferred tax assets during the year.

The strategy represents an action that we ordinarily would not take, but would take, if necessary, to realize an estimated \$3.3 million in U.S. deferred tax assets.

### **The market price of our common stock may be volatile.**

Our stock price has historically been volatile. From January 1, 2004 to December 31, 2008, the trading price of our common stock ranged from \$27.75 to \$2.81. 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 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. 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.

### **Acquisitions may disrupt our operations or adversely affect our results.**

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We evaluate strategic acquisition opportunities to acquire other businesses as they arise. The expenses we incur evaluating and pursuing acquisitions, such as during the third quarter of 2006, could have a material adverse effect on our results of operations. 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 financial, operational and other benefits we anticipate from any acquisition. 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:

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

amortization of acquired intangible assets.

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**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 1B. Unresolved Staff Comments**

None.

**ITEM 2. Properties**

The following table provides information about our current facilities.

<u>Location</u>	<u>Type</u>	<u>Principal Uses</u>	<u>Approximate Square Footage</u>	<u>Ownership</u>	<u>Lease Expiration</u>
Middletown, Rhode Island	Office, plant and warehouse	Corporate headquarters, research and development, sales and service, manufacturing (mobile communications products), marketing and administration	75,000	Owned	

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Middletown, Rhode Island	Warehouse	Warehousing (mobile communications products)	39,000	Leased	December 2011
Tinley Park, Illinois	Plant and warehouse	Manufacturing, research and development (guidance and stabilization products)	40,000	Leased	December 2013
Kokkedal, Denmark	Office and warehouse	European headquarters, sales, marketing and support	11,000	Leased	May 2014

We anticipate that any substantial increase in demand for our products would require us to expand our production capacity. Although we can expand production by adding additional shifts to our operations, we may need to identify and acquire or lease additional manufacturing facilities. We believe that suitable additional or substitute facilities will be available as required.

### **ITEM 3. Legal Proceedings**

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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 management's opinion, is likely to materially harm our business, results of operations, financial condition or cash flows.

### **ITEM 4. Submission of Matters to a Vote of Security Holders**

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No matters were submitted to a vote of our stockholders during the fourth quarter of the fiscal year ended December 31, 2008.

Table of Contents**PART II****ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

*Market Information.* Our common stock trades on the NASDAQ Global Market under the symbol KVHI. The following table provides, for the periods indicated, the high and low sale prices for our common stock as reported on the NASDAQ Global Market (and its predecessor, the NASDAQ National Market).

	<u>High</u>	<u>Low</u>
<b>Year Ended December 31, 2008:</b>		
First quarter	\$ 9.10	\$ 6.69
Second quarter	10.19	7.26
Third quarter	10.00	7.25
Fourth quarter	9.25	2.81
<b>Year Ended December 31, 2007:</b>		
First quarter	\$ 10.73	\$ 9.12
Second quarter	9.95	8.48
Third quarter	10.69	8.50
Fourth quarter	9.80	7.40

*Stockholders.* As of March 11, 2009, we had 101 holders of record of our common stock. This number does not include stockholders for whom shares were held in a nominee or street name.

*Dividends.* We have never declared or paid cash dividends on our capital stock, and we do not plan to pay any cash dividends in the foreseeable future. We currently intend to retain any future earnings to finance our operations and future growth. In addition, the terms of our bank line of credit place restrictions on our ability to pay cash dividends on our common stock.

*Issuer Purchases of Equity Securities.* During the three months ended December 31, 2008, we repurchased our shares as described below:

<u>Period</u>	<u>Total Number of Shares Purchased</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Programs</u>	<u>Maximum Number of Shares that May Yet be Purchased Under the Programs</u>
October 1, 2008 - October 31, 2008	24,076	\$ 5.55	24,076	9,203
November 1, 2008 - November 30, 2008	13,503	\$ 5.81	13,503	995,700
	73,980	\$ 4.55	73,980	921,720

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December 1, 2008 December 31,  
2008

Total	111,559	\$ 4.92	111,559	921,720
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On July 26, 2007, our Board of Directors authorized a program to repurchase up to one million shares of our common stock. The repurchase program is funded using our existing cash and cash equivalents, marketable securities and future cash flows. Under the repurchase program, at our 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. On November 6, 2008, we completed the repurchase program.

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On November 26, 2008, our Board of Directors authorized a new share repurchase program pursuant to which we may purchase up to one million shares of our common stock. The terms and conditions are the same as those established under the program authorized on July 26, 2007. No other repurchase programs expired during the year ended December 31, 2008.

During the year ended December 31, 2008, we repurchased 837,280 shares of our common stock in open market transactions at a cost of approximately \$6.7 million.

In 2007 and 2006, an employee exercised stock options and delivered 25,996 and 12,153 shares of common stock to us in payment of the exercise price, respectively. The shares were valued on the basis of the closing price of our common stock on the date of exercise.

**STOCK PERFORMANCE GRAPH**

The following graph compares the performance of our cumulative stockholder return with that of the NASDAQ Composite Index, a broad equity market index, and the NASDAQ Telecommunications Index, a published industry index. The cumulative stockholder returns for shares of our common stock and for the market indices are calculated assuming \$100 was invested on December 31, 2003. We paid no cash dividends during the periods shown. The performance of the market indices is shown on a total return (dividends reinvested) basis. Measurement points are the last trading days of the years ended December 2003, 2004, 2005, 2006, 2007 and 2008.

	<b>Value of investments as of December 31,</b>					
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
KVH Industries, Inc.	\$ 100	\$ 36	\$ 36	\$ 38	\$ 29	\$ 19
NASDAQ Composite	100	109	110	121	132	79
NASDAQ Telecommunications	100	108	100	128	140	80

**Table of Contents****ITEM 6. Selected Financial Data**

We have derived the following selected financial data from our audited consolidated financial statements. You should read this data in conjunction with Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 8. Financial Statements and Supplementary Data.

See note 1 to our consolidated financial statements for a summary of significant accounting policies and the effects on the year-to-year comparability of the selected financial data.

	Year Ended December 31,				
	2008	2007	2006	2005	2004
	(in thousands, except per share data)				
<b>Consolidated Statement of Operations Data:</b>					
Sales:					
Product	\$ 69,941	\$ 73,533	\$ 70,748	\$ 65,506	\$ 57,671
Service	12,463	7,382	8,225	5,752	4,632
<b>Total sales</b>	<b>82,404</b>	<b>80,915</b>	<b>78,973</b>	<b>71,258</b>	<b>62,303</b>
Costs and expenses:					
Costs of product sales	42,552	44,892	42,494	37,847	39,151
Costs of service sales	6,130	3,557	4,674	3,740	3,141
Research and development	7,655	9,265	7,720	7,692	6,337
Sales, marketing and support	16,162	15,402	14,387	13,845	15,907
General and administrative	7,035	7,538	7,842	5,845	5,166
<b>Total costs and expenses</b>	<b>79,534</b>	<b>80,654</b>	<b>77,117</b>	<b>68,969</b>	<b>69,702</b>
Income (loss) from operations	2,870	261	1,856	2,289	(7,399)
Interest income	1,220	2,715	2,387	1,465	663
Interest expense	153	156	193	196	192
Other (expense) income	(231)	(77)	(26)	(338)	35
<b>Income (loss) before income taxes</b>	<b>3,706</b>	<b>2,743</b>	<b>4,024</b>	<b>3,220</b>	<b>(6,893)</b>
Income tax (expense) benefit	(648)	(244)	(350)	(289)	746
<b>Net income (loss)</b>	<b>\$ 3,058</b>	<b>\$ 2,499</b>	<b>\$ 3,674</b>	<b>\$ 2,931</b>	<b>\$ (6,147)</b>
Per share information:					